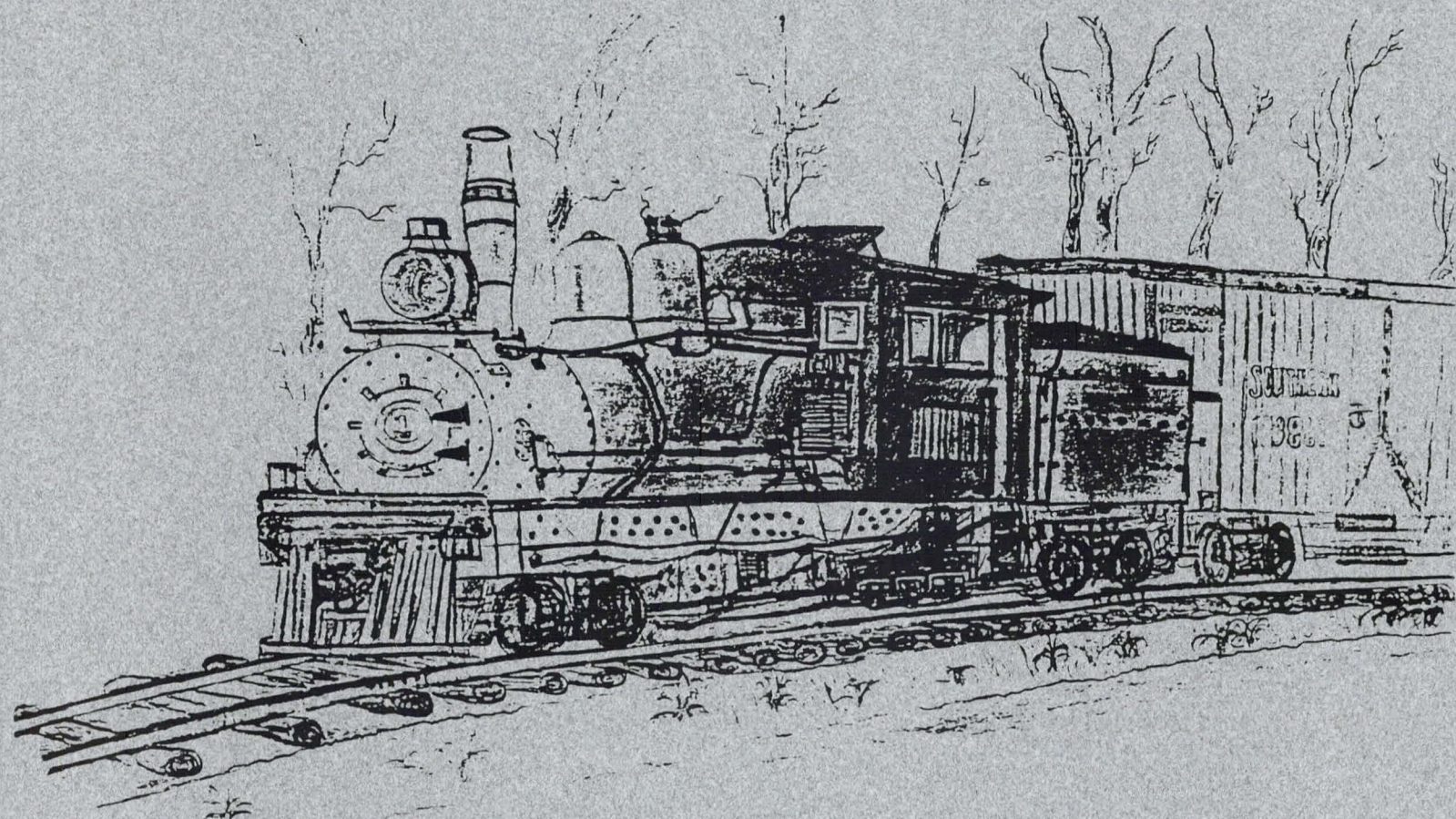


S9.5 0146

Phantom Railroads of the Nolichucky Ranger District



PHANTOM RAILROADS OF THE NOLICHUCKY RANGER DISTRICT

Cheryl L. Summers
Resource Assistant
Nolichucky Ranger District
120 Austin Ave.
Greeneville, TN 37745
(615)638-4109

Clemson Class of 1993
April 1, 1994

This paper was prepared as a student project in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management Program at Clemson University. It in no way reflects USDA Forest Service policy nor are the opinions expressed those of anyone other than the author.

Author: Cheryl L. Summers
Resource Assistant
Cherokee National Forest
Nolichucky Ranger District
120 Austin Ave.
Greeneville, TN 37745

Title: Phantom Railroads of the Nolichucky Ranger District

Abstract: The Appalachian forestlands have had a rich history of commercial logging and railroading. This paper highlights two of the major companies – John Heilman Lumber Company and Patterson Lumber Company – that operated on land now managed by the the Nolichucky Ranger District, Cherokee National Forest. Primary research into Cherokee National Forest land records, photographs, oral interviews, and excursions into the Archives of Appalachia provided insight into the lives of community members and company employees.

The information discovered through this research led to the development of several interpretive themes; commercial logging practices between 1900-1920 in Greene County, Tennessee; methods of transporting logs and lumber; rhythm of life of community members and company employees; and recovery of the forest through Forest Service efforts. This paper includes a short history of the featured lumber companies, interpretive inventories for selected sites and mock-ups for information panels.

Keywords: Logging, Railroad, John Heilman Lumber Company, Patterson Lumber Company, Interpretation

ACKNOWLEDGEMENTS

There are many people who deserve recognition and thanks for helping with this project. First and foremost are those people who contributed their skills, talents and guidance: Jan Edwards for his knowledge of the railroads, Tammy Rowe for her artistic contributions, Tracy Blevins for her expertise with $\text{\TeX}$, and Delce Dyer for her interpretive input and editing expertise, as well as her ear from project conception to birth.

The author wants to express her gratitude to everybody who shared their thoughts, experiences and photographs. Mr. Carlos Cordova deserves special recognition for his generosity. The time, information, photographs and diaries he contributed were the framework on which the project was sculpted.

The author would be remiss if she didn't express her sincere appreciation to ALL the Nolicucky Ranger District personnel for taking up her slack, while she diligently researched and wrote her report. She is also grateful for their interest, assistance, patience and support during the months of "THE PROJECT".

A special thanks to Marcia Carter for her editing assistance and for keeping the author "on track" at the gym.

Table of Contents

Introduction	1
Chapter 1	5
Methodology	
Chapter 2	8
History of Logging in the Southern Appalachians	
Chapter 3	24
Pre-Forest Service Logging on Lands Managed by the Nolichucky Ranger District	
Chapter 4	54
Interpreting the Greene County Phantom Railroads	
Bullen Hollow Trail	55
Little Paint Creek Trail	64
Chapter 5	73
Conclusion	
Bibliography	78
Appendices	80
Appendix I	81
Appendix II	82
Appendix III	86
Appendix IV	87

List of Figures

All illustrations, photographs and maps are collectively called "Figures" and are numbered consecutively in each chapter. Figures are located at the end of the text in each chapter.

Figure 0.1	4
Large, early 1920s land acquisitions on the Nolichucky Ranger District	
Figure 1.1	7
Otis Ricker and Marvin Harrison during the February 28, 1994 interview	
Figure 2.1	17
Two man saw teams were used to fell trees	
Figure 2.2	17
Peavy	
Figure 2.3	17
Canthook	
Figure 2.4	18
Team logging used in almost all logging operations pulled logs out of the woods	
Figure 2.5	18
The logs were hooked to a crossbar called a doubletree of spreader	
Figure 2.6	19
Teams pulled the logs along skid trails	
Figure 2.7	19
The barn man took care of the company's horses, mules, and oxen	
Figure 2.8	20
A John Heilman Lumber Company crew with an arch-roofed Barnhart loader	
Figure 2.9	21
Shay Engine	
Figure 2.10	22
Climax Engine	
Figure 2.11	23
Employees of the John Heilman Lumber Company in front of the commissary. A good example of the makeshift ties used to construct the logging railways	

Figure 3.1	40
Map of research areas	
Figure 3.2	41
The Greeneville & Nolichucky Railroad's #1 engine is loaded for its return trip to Greeneville	
Figure 3.3	41
The Greeneville & Nolichucky Railroad's #2 engine is assembled for a trip to town	
Figure 3.4	42
The Doak and Cordova family at the dam located on Dry Creek	
Figure 3.5	43
Approximate location of John Heilman Lumber Company's Rail lines and flumes	
Figure 3.6	44
Loggers and skidder crews of John Heilman Lumber Company were the backbone of the lumber operation, 1911	
Figure 3.7	44
Approximately the same location, 1994	
Figure 3.8	45
Margaret Lee Doak (1893-1919)	
Figure 3.9	45
The Doak family cabin located at the base of the mountain in the midst of the John Heilman Company camp	
Figure 3.10	46
Charles S. Doak on the porch of the Doak cabin, 1925	
Figure 3.11	46
Carlos Cordova standing on the steps of the cabin, 1994	
Figure 3.12	47
Dr. Jordan's home built by the lumber company, 1994	
Figure 3.13	47
The main boarding house at the John Heilman Lumber Camp. The tracks for the Greeneville and Nolichucky Railroad are in the foreground	
Figure 3.14	48
John Heilman Lumber Company's commissary and main office, 1911	

Figure 3.15	48
The same location, 1994	
Figure 3.16	49
Remnants from the commissary are scattered along the ground, 1994	
Figure 3.17	49
Railroad bed leading from the commissary site back to Greeneville, 1994	
Figure 3.18	50
The concrete foundation of Patterson Lumber Company's 6-foot bandmill located down-stream	
Figure 3.19	50
The concrete foundation of Patterson Lumber Company's 6-foot bandmill located upstream	
Figure 3.20	51
A pile containing rock and brick, remnants of the bandmill's boilers	
Figure 3.21	51
Cable and chain scars on trees, evidence of the activity that once occurred on this site	
Figure 3.22	52
A flume similar to this transported lumber from the Patterson sawmill about five miles to the French Broad River	
Figure 3.23	53
Approximate location of Patterson Lumber Company's rail lines and flume	
Figure 5.1	76
Railroad car used in roadbed on Paint Creek Road	
Figure 5.2	77
Railroad wheels located along Little Paint Creek Trail	
Figure 5.3	77
Remains of one of the many hemlock bridges left on Little Paint Creek Trail	

Executive Summary

Title: Phantom Railroads of the Nolichucky Ranger District

Author: Cheryl L. Summers
Resource Assistant
Nolichucky Ranger District
120 Austin Avenue
Greeneville, Tennessee 37743

Summary:

The purpose of this project was to develop an interpretive plan to relay the historic logging and railroad activity that occurred in the early 1920s on lands managed by the Nolichucky Ranger District, Cherokee National Forest. This entailed conducting primary research to gather historical information. The basic history of the logging and railroad industry in the Southern Appalachians was gathered by delving into the Archives of Appalachia. Site specific information was collected by researching Cherokee National Forest land records, conducting oral interviews and assembling photographs.

This paper includes an explanation of logging practices and modes of transporting logs in the Southern Appalachians between 1900-1920, a brief history of two large lumber companies that operated in Greene County between 1900-1920, interpretive inventories for selected sites and mock-ups for interpretive panels.

The major interpretive concepts are:

1. How local people used the lumber companies amenities (commissary, railroad, etc.);
2. Local sentiment concerning this industry, and its effects on local economy and landscape;

3. Logging methods in the early 1900s in the Southern Appalachians;
4. Modes of transporting logs/lumber from forest to mill to market;
5. Recovery of forest through Forest Service efforts.

Several interpretive modes have been selected to convey these concepts. They are:

1. Develop an interpretive panel including photographs and captions on trailhead information board;
2. Develop a one person interpretive skit discussing the impact the logging and railroad industry had on a Greene County community;
3. Develop a Forest "family of maps" brochure on Nolichucky Phantom Railroads, to include location map and history of local railroads.

Included in this paper are mock-ups of interpretive panels to be installed on information boards at Little Paint Creek trailhead and Bullen Hollow trailhead. These sites were selected because of the logging and railroad activity that occurred in these areas and their accessibility to the public.

GHOST TRAIN

*They built the little roads of steel,
Through mountains and through hills,
And they gave their sweat and substance,
To reach the mines and mills.*

*To the forests and the coal fields,
By steam they said we'd go,
And the iron web was woven,
Just a few short years ago.*

*Now the trains are only phantoms,
On a haunted right of way,
But I thought I heard a whistle,
In the wind of yesterday.*

*Then a shadow and a movement,
I thought that I could see,
'Twas a ghost train rumbling softly,
Through the hills of Tennessee.*

Thomas E. Bailey

Introduction

The timber industry began in the northern and mid-Atlantic states, close to the large East Coast cities that needed lumber for construction and fuel. By the 1860s large forests in these areas had been felled, and by the turn of the century forests in Maine and the Great Lake states had also been cut.¹ The diverse hardwoods in the Southern Appalachian mountains lured northern timber industries south.

Timber speculators from the north and even as far away as Glasgow, Scotland and Cape Town, South Africa had spent years buying land. By 1900, the timber industry had purchased millions of acres of land from Southern Appalachian residents. The new owners saturated the mountains with thousands of miles of railroads, opening up isolated sections of land and connecting them with the main railroad lines for easy distribution. By 1910, almost 40% of the timber produced in the United States was from the southern mountains.²

Industrialization of the Southern Appalachians changed both the forests and the Appalachian people, altering traditional ways of life. The large timber companies built their own railroad

¹ Lee Barnes, "Appalachian Logging," *Katuah Journal* Fall 1992: 4.

² Barry M. Buxton and Malinda L. Crutchfield, *The Great Forest: an Appalachian Story* (Boone: Appalachian Consortium Press, 1985)

lines, sawmills and communities in the mountains, introducing the mountain people to a "modern lifestyle" that included electricity, telephones, health services and theaters.³

Local leaders welcomed the new investors and were convinced that economic development and industrialization were the best solution for the future of the area. Local residents were also pleased with the industry and its modern conveniences. "People would give their whole place [for right-of-ways], I guess, to have a train coming through. That was something at that time to have two trains run this line."⁴ Land increased in price because of the abundant natural resources. People found steady employment, many for the first time, in the lumber industry, coal mines, mica pits, and copper mines. During an interview, Marvin Harrison stated, "I guess a lot of the communities was glad they was here because it furnished them jobs."⁵ Even folks not directly working for the industries benefited through the sale of honey, apples, butter, eggs, and produce.⁶

However, absentee landowners concentrated on short term profits. Their goal was to get what they could and leave. By the mid 1920s timber resources were depleted and the timber companies began heading west, leaving in their wake a region that was plagued with unemployment, poverty and destitution.⁷

The 1902 *Message from the President of the United States* outlined the devastation of the

³ Barnes, p.5.

⁴ Mr. Otis Ricker, interview with author. Greene County, Tenn, 28 February 1994.

⁵ Mr. Marvin Harrison, interview with author, Greene County, Tenn. 28, February 1994.

⁶ John R. Waite, "Working for W.M. Ritter Lumber Company," *The Blue Ridge Stemwinder* 3 (Spring 1991): 13.

⁷ Buxton and Crutchfield.

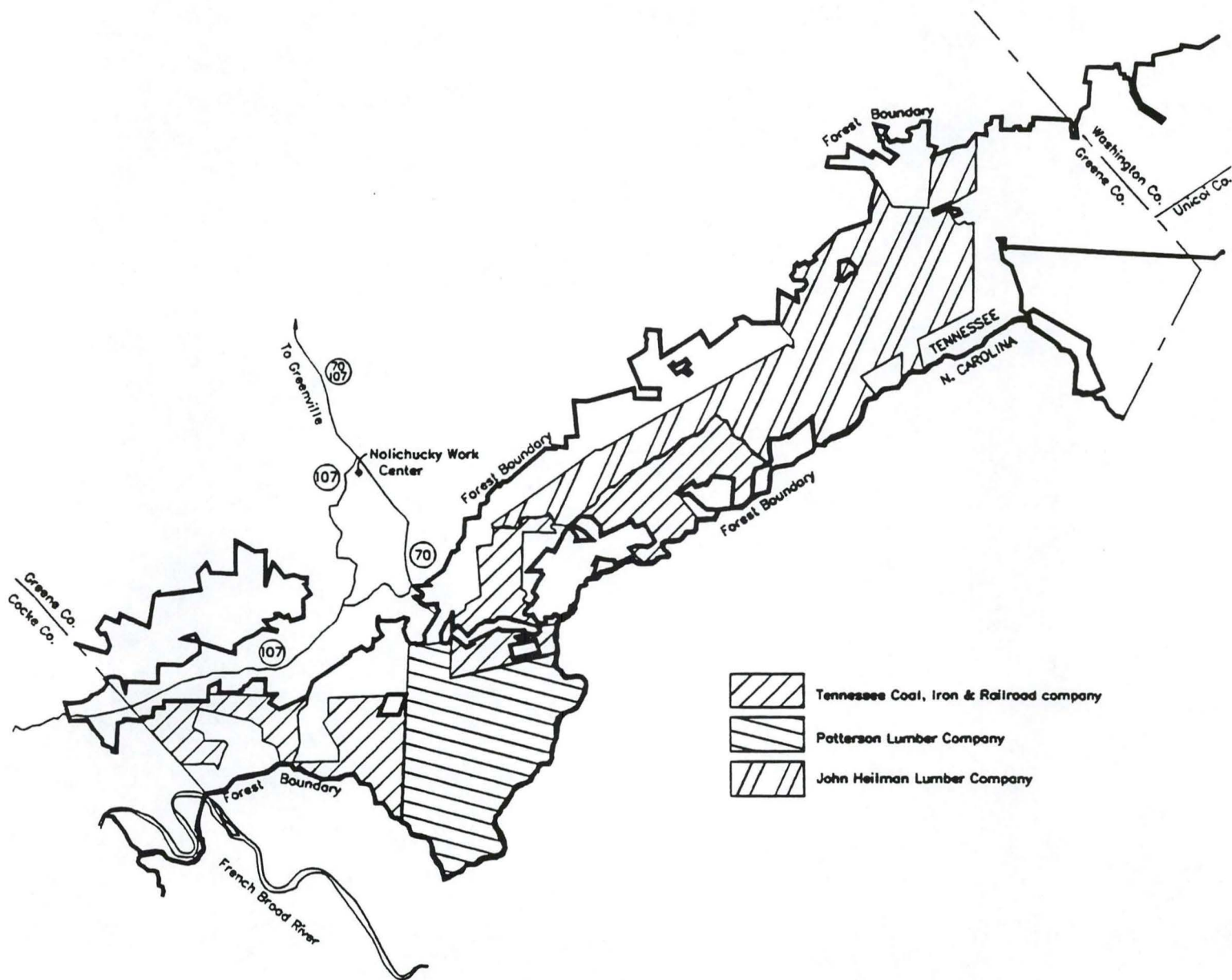
Southern Appalachians caused by exploitation of natural resources. As a result of the report, Congress passed the Weeks Act in 1911, authorizing the federal government to purchase "forested, cut-over, or denuded lands within the watersheds of navigable streams".⁸ The Southern Appalachian mountains met this description perfectly and large tracts of land were purchased in East Tennessee for the national forest shortly after the passage of the Act.

Much of the Cherokee National Forest was acquired under this jurisdiction. The Nolichucky District was made up of several large acquisitions from private timber and mineral companies including John Heilman Lumber, Patterson Lumber and Tennessee Coal, Iron and Railroad. (See Figure 0.1.)

Old railroad beds, remnants of sawmills and logging camps, scattered pictures and old-timers' memories are all that remain of the large scale lumbering that occurred at the turn of the century, 1900 to 1925. This research was conducted to capture some of those remnants and memories and interpret them to the present and future generations, so that the logging and railroad heritage that played such an important role in this area is not completely lost.

⁸ Barnes, p. 5.

Large Land Aquisition on the Nolichucky Ranger District



Tennessee Coal, Iron & Railroad Company (1913) – 5775 ac
 Patterson Lumber Company (1920) – 5472 ac
 John Heilman Lumber Company (1927) – 6072 ac
 John Heilman Lumber Company (Condemnation 1928) – 2691 ac

Figure 0.1 The Nolichucky RD aquired 19,965 acres of land in the early 1920s when the Federal Gov't purchased large tracts of land from the John Heilman Lumber Company and Tennessee Coal, Iron & Railroad.

CHAPTER ONE

Methodology

For this project, a number of resources were consulted, including Forest Service Land Records, the Archives of Appalachia at East Tennessee State University, personal interviews with local residents and Forest Service personnel, and field investigations. (See Figure 1.1.)

A personal advertisement was placed in the Greeneville Sun requesting information on the logging industry and accompanying railroad. (See Appendix I.) About six responses were received. Some people were able to provide information on the local railroad and some were just interested in railroads in general. In fact, there was enough interest that several invitations to speak at club meetings were offered in the process.

Most of the personal interviews were recorded on audio tape; introductory conversations on the phone and in passing were not recorded. Each interviewee supplied a list of people to be contacted and more leads to follow, creating a never-ending research loop that was difficult to escape.

The original project prospectus included researching and developing an auto tour on the

historic railroad system located on the Northern Districts of the Cherokee National Forest.

However the scope of the project narrowed drastically for the following reasons:

1. Sites were so prolific and the history so rich that adequate research into the logging and railroad industry on the entire north end would be too extensive;
2. Many of the sites were on private land, limiting public access; and
3. The distance between the sites did not lend itself well to a cohesive auto tour.

Instead a history of the logging practices in the Southern Appalachians between 1905 and 1918 is discussed in Chapter Two. Chapter Three focuses on the history of two of the major "Ghost Railroads" located in Greene County, Nolichucky Ranger District. The interpretive inventory and information board mock ups are located in Chapter Four. The District plans to use the mock-ups to create information boards at a site along each of the "Ghost Railroads" discussed in this project. Suggestions and resources for further research are listed in the Conclusion, Chapter Five.



Figure 1.1 Otis Ricker and Marvin Harrison during the Feb 28, 1994 interview. *Photo by author.*

CHAPTER TWO

History of Logging in the Southern Appalachians

The process of logging in the first two decades of the twentieth century involved felling the trees, skidding the logs to the road, railroad or flume transporting them to the sawmill, sawing the lumber, and shipping the finished product to a market.¹

Felling

Felling trees changed little over time, a sharp contrast to the rest of the logging industry in the early 1900's. A standard saw team consisted of three men – a lead chipper and two sawyers. Their equipment consisted of an axe, some wedges and a two-man crosscut saw. (See Figure 2.1.) The standard saw was 6-8 feet long, though at times a 12 foot saw, pulled by four men, was needed for large trees.²

The first step in felling a tree was chopping a lead. The lead notch is the first cut in the tree and dictates the direction of the fall.³ Therefore the lead chipper was considered the most important man on the team because of the skill and knowledge his job required. Once

¹ Francis H. Parker, "Southern Appalachian Logging," *The Blue Ridge Stemwinder* 3 (Spring 1991): 5.

² Ed Trout, "Logging in Sevier County," unpublished typewritten manuscript, Historian's Office, Great Smoky Mountain National Park, 1985, p. 5.

³ Mr. Bill Woody, USDA Forest Service, interview with author, Cocke County, Tenn., March 1994.

the lead was chopped the sawyers made the back cut to fell the tree. The saws would often get pinched inside the cut, creating the need to use wedges. Wedges hammered into the cut behind the saw held the cut open.⁴

Once the tree was on the ground the chipper would cut the branches off the tree and measure the bole into logs, twelve, fourteen or sixteen feet in length.⁵ Sawyers would then cut the tree into the marked log lengths.⁶

An average saw crew was expected to cut 10,000 board feet a day.⁷ This meant felling and bucking 10-12 trees, 14-30 inches in diameter each day.⁸

Getting the Logs Out

Once the logs were cut there were four ways to get the trees out of the woods and to a sawmill or transportation system: ballhooting, flumes or slides, splash dams, and team logging. These methods were used alone or in combination with each other.

Ballhooting was simply rolling the logs down the mountain, by starting them moving with a peavy or cant hook. (See Figure 2.2 and 2.3.) Logs often got stuck and had to be kept rolling down the mountain. This was a strenuous job that involved a great deal of lifting and pushing, requiring strong men.⁹

⁴ Trout, p. 6.

⁵ Parker, p. 5.

⁶ Trout, p. 6.

⁷ A board foot is a piece of board 1 inch thick by 12 inches wide by 12 inches long.

⁸ Trout, p. 6.

⁹ Ibid, p. 7.

Water driven flumes or V-shaped troughs or slides were also used. Building slides was very labor intensive and not worthwhile unless there were a great number of logs to remove. Oftentimes horses or mules would start dragging the log, then step aside and let momentum carry the logs through the slide. Slides were dangerous, and animals and their handlers could easily get hurt. Young boys were sometimes hired to grease or “blackstrap” the slides to help the logs slide to the bottom.¹⁰ The boys were also used to walk the slides and flumes to note log jams and unjam stuck logs if possible.¹¹

Splash dams were structures built along a stream to impound the water behind it. Logs were piled below the dam during fall and winter. In the springtime when the water level was high the dam was opened; either through a constructed gate or by knocking the logs away, many times by dynamite. The momentum of the water would then carry the logs downstream to a larger body of water that eventually led to a sawmill or transportation system. Splashing caused a great deal of erosion and was environmentally devastating. It also cost the timber companies money because logs were damaged and lost in the process.¹²

Team logging was used in almost all logging operations, either by itself or to fill in where splash dams and ballhooting were not practical. (See Figure 2.4.) Horses, mules or oxen were used in pairs. A “team” consisted of one or more pair of horses or mules, and a “yoke” was one pair of oxen. The team was hooked to a harness with a wooden crossbar called a singletree. If two singletrees were used they hooked to a longer wooden crossbar called

¹⁰ Ibid, p. 10-11.

¹¹ Mr. Gene Hopson, USDA Forest Service, interview with author, Greene County, Tenn., March 1994.

¹² Trout, p. 8.

a doubletree, or spreader. (See Figure 2.5.) Connected to the spreader was a chain that attached to hooks (grabs) driven into the log a couple feet from its end. The end of the log was usually beveled to ease its movement through the woods. The size of the logs determined the number a team could pull at one time.¹³

Skidding was usually downhill, since the railroads followed flats along the stream. Once the logs were attached, teams would pull the logs down the logging road or skid trail. (See Figure 2.5.) The end of the log was usually beveled to ease its movement through the woods. After several trips the skid trail would resemble a ditch. If the trail became too muddy, a "corduroy road" or "pole road" was built. These roads were constructed of small diameter trees laid across a double row of long poles laid end to end, similar to a modern-day "board-walk".¹⁴

Many of the teams were owned by logging companies and were cared for by teamsters, or drivers, and the barn man. The animals were a large investment and were well cared for. According to one source, "one lumber company told the foremen to take good care of the horses and mules; for if a mule got killed the company had to buy another, but if a man were killed they did not."¹⁵ Companies sometimes hired drivers with teams and paid them per thousand feet of logs they hauled.¹⁶

¹³ Ibid, p. 9-10.

¹⁴ Ibid, p.10

¹⁵ John R. Waite, "Working for W.M. Ritter Lumber Company," *The Blue Ridge Stemwinder* 3 (Spring 1991): p.13.

¹⁶ Mr. Marvin Harrison, interview with author, Greene County, Tenn., 28 February 1994.

Team logging eventually gave way to mechanized skidders; a slow process in the Appalachian mountains. A skidder was a "steampowered machine that moved on railroad rails, and was equipped with a winch-and-cable system ... used to haul (or "skid") logs from the woods, to itself."¹⁷ Logs were accumulated at a "landing" where they could be loaded onto a railroad or a wheeled cart to transport to a sawmill. The Appalachian people soon became accustomed to the sight and sound of steampowered engines because they powered the log loaders, sawmills and railroads that snaked throughout the once quiet mountains.

The two most common loaders were the arch-roofed Barnhart and the flat-roofed American. Both loaders had swivel cranes with wood or steel beams, and cable drums with tongs to pick up the logs.¹⁸ (See Figure 2.8.) The loaderman would swing the machine and let out cable. The tong hooker worked from the log landing to hook the tongs into a log, and the top loader freed the tongs from the log once it was in place on a flatcar. The mechanized loaders moved on rails on top of flatcars. When one car was filled, the loader moved on to the next car along short sections of transfer rails. The flatcar closest to the engine was loaded first and the loader worked its way down the series of rail cars until it came to rest on a stationary car. There were usually four cars though sometimes more if the grade wasn't too steep.¹⁹

If the rail line was narrow gauge, cartop loaders were not stable enough. Loaders that ran directly on the track were used, the most popular were the American Model D and

¹⁷ Trout, p. 17.

¹⁸ Parker, p. 7.

¹⁹ Vic Weals, *Last Train to Elkmont* (Knoxville: Olden Press, 1991) 121-122.

Model E. Instead, the log loader lifted all the cars off the track and then brought each car one by one onto the track, loaded it, pushed it away and set another one on the track to load.²⁰

The Railroad

Trains used to haul logs to the mill soon became the aspect of the logging industry many people remember best.²¹ For example Otis Ricker had many more memories of the train than the logging that took place. He recollected "it was quite thrilling to a boy, to hear that train whistle, Whooooooooo!!!!"²²

The trains consisted of an engine, a loader, log cars, a few service cars, and usually a caboose or crew car. There were two types of engines (the most important part of the train) – the rod type and the geared type. Rod engines had driver rods mounted on the sides of the wheel, and geared engines moved by a system of geared shafts and axles. The rod engines were more picturesque chugging through the landscape but had less power and were harder on the track.²³ Therefore geared engines, developed in the late 1800s to negotiate on light, temporary tracks over rough ground and steep terrain, were preferred over rod engines on the steep grades of the southern Appalachian mountains.²⁴

²⁰ Parker, p.7.

²¹ Trout, p. 19.

²² Mr. Otis Ricker, interview with author, Greene County, Tenn., 28 February 1994.

²³ Trout, p. 20.

²⁴ Parker, p. 7.

The two most common gear locomotives used in the Appalachians were the Shay and the Climax. The Shay gear locomotive was developed by Ephraim Shay in 1880 and was first produced by Lima Machine Works in Ohio.²⁵ The Shay had a high speed vertical engine on one side driven by a system of shafts, universal couplings and spur gears to power the wheels. (See Figure 2.9.) The Shay engine was said to be able to pull itself back onto the track after a minor derailment, earning it the nickname, "Sidewinder".²⁶ The Climax, produced between 1884 and 1930 by the Climax Manufacturing Company of Corry, Pennsylvania, had two sloping cylinders on each side connected by gearing and shafts to power the wheels.²⁷ (See Figure 2.10.) These two engines were manufactured as both narrow gauge and standard gauge engines.

Two other identifying features of the steam powered locomotives were the two domes on top of the engine. One was a pressure release for the steam and the other a sand hopper or sand dome. Sand was taken from sand houses where it was stored, heated and dried so it would flow easily, then placed in the sand dome. Sand was then scattered onto the rails in front of the wheels; nozzles would drip water in front of the sand so it would stick to the rails. This helped create traction when going up or down steep grades.²⁸

The logging railroads were constructed for economy instead of durability. Dynamite was used to remove rock but, because of the cost, companies preferred to follow the direction

²⁵ John Marshall, *Rail, Facts and Feat*. (New York: The Two Continent Publishing Group, 1974) 152-153. In 1901, production switched to the Lima Locomotive and Machine Company.

²⁶ Lee Barnes, "Appalachian Logging," *Katuah Journal* Fall 1992: 5.

²⁷ Marshall, p. 152-153.

²⁸ Trout, p. 20.

of the terrain and use bridges, trestles and fords rather than move a lot of rock and earth. Untreated hand hewn ties and dirt used as a stabilizer between the ties saved money too. (See Figure 2.11.) For short distances of "three or four miles, 'stringer' roads were common, using 6" X 6" hardwood timbers for rails."²⁹ The lifespan of these railroads may have only been a few years, long enough, however to cut and haul the timber.³⁰

Rail weight depended on the kind of railroad system used, 35 pounds for narrow gauge railroads and 50 to 60 pounds for standard gauge lines.³¹ The decision to use narrow gauge, three feet between the rails, or standard gauge, 4 feet 8 1/2 inches between the rails,³² depended on terrain, volume of timber, gauge of the connecting rail line or what equipment was on hand from previous operations. Narrow gauge lines were favored in the steep, rugged terrain of the mountains.³³ Narrow gauge lines, however, were not always stable. Wrecks were common and many people were injured or killed by runaway trains and derailments. A custom during that time, remembering loggers killed accidentally, by hanging their dinner buckets on a tree, was practiced all too often.³⁴

Sawmills

Sawmills used in the Appalachians included "portable" mills, "semi-portable" mills and big bandsaw mills. A portable mill was steam driven with a circular headsaw and a simple

²⁹ Parker, p. 7.

³⁰ Ibid.

³¹ Ibid.

³² Goforth, J.A. "Railroads of East Tennessee." Vertical file "Railroads-Tennessee East," Archives of Appalachia, East Tennessee State University, Johnson City, Tenn. N.D.

³³ Parker, p. 7.

³⁴ Weals, p. 46.

carriage, driven by a cable. It was built close to the timber source and relocated once the raw material had run out. Lumber was shipped out by flumes, wagons or the railroad. A steam driven bandsaw was not portable but was able to produce considerably more lumber.³⁵ Typically a bandsaw could cut 100,000 board feet of lumber per day, 100 times the production of water-powered sawmills and 1000 times the production of a two-man saw team.³⁶

Industrialization had come to the Southern Appalachians.

³⁵ Parker, p. 8.

³⁶ Barnes, p. 5.



Figure 2.1 Two man saw teams were used to fell trees. *Courtesy of C.C. Tiller Collection, Archives of Appalachia.*

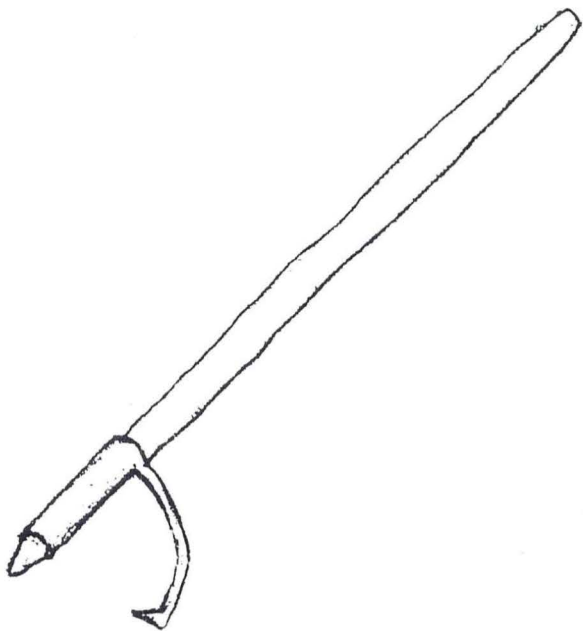


Figure 2.2 Peavy

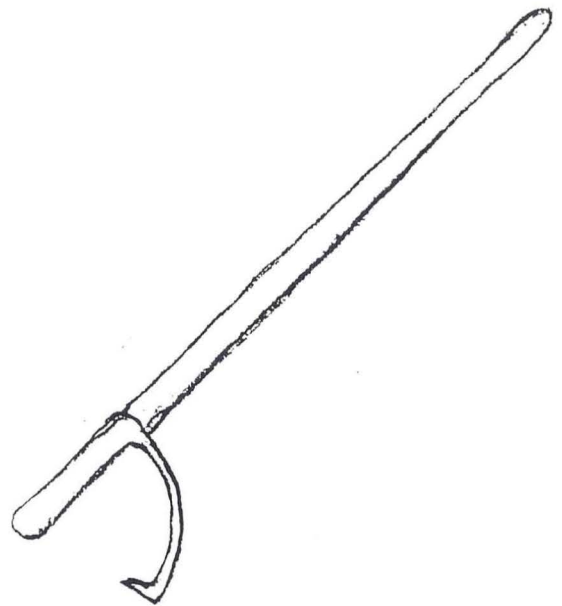


Figure 2.3 Canthook

Important tools of the logging industry used for moving logs during all phases of the logging industry. *Illustrator, Tammy Rowe.*



Figure 2.4 Team logging used in almost all logging operations pulled logs out of the woods. *Photo courtesy of C.C. Tiller Collection, Archives of Appalachia.*

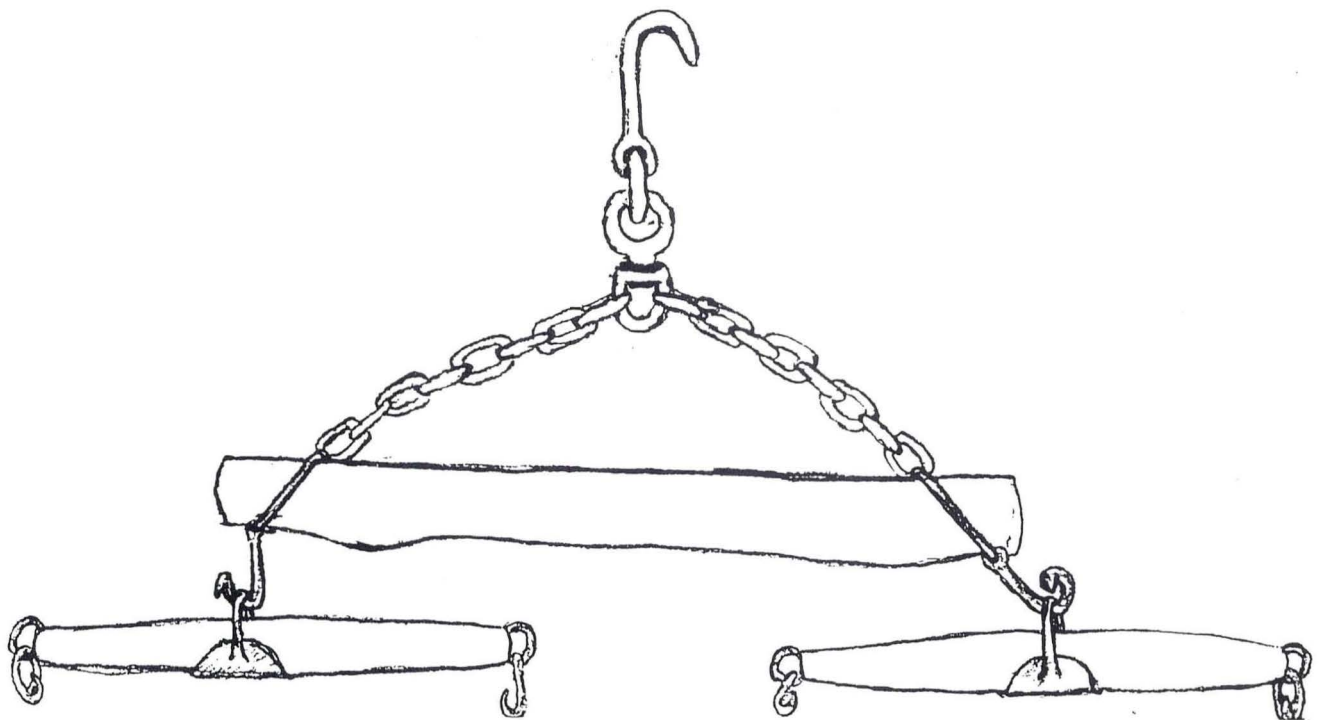


Figure 2.5 Logs were hooked to a crossbar called a doubletree or spreader. Attached to the doubletree were two single trees with trace chains that hooked to the team. *Illustrator, Tammy Rowe.*



Figure 2.6 Teams pulled the logs along skid trails. *Courtesy of Great Smoky Mountain National Park, Tremont Logging History Auto Tour Brochure.*



Figure 2.7 The barn man took care of the company's horses, mules and oxen. It was considered a job with a great deal of responsibility because of the value placed on a strong, well-trained animal. *Courtesy of C.C. Tiller Collection, Archives of Appalachia.*

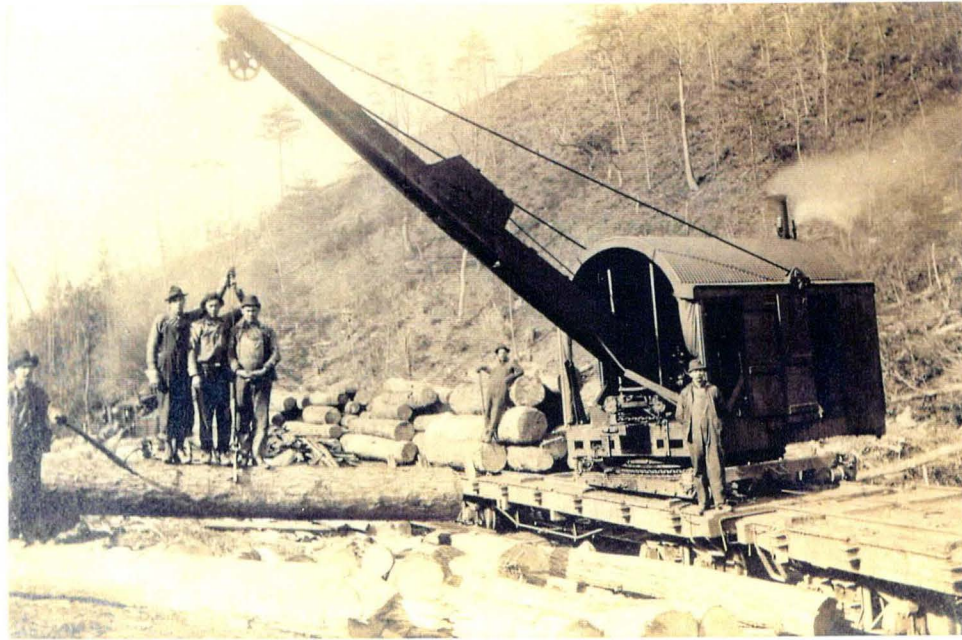


Figure 2.8 A John Heilman Lumber Company crew with an arch-roofed Barnhart Loader. Note how the loader moves along rails on the flatcars. Circa 1911. *Courtesy of Elizabeth Tullock.*

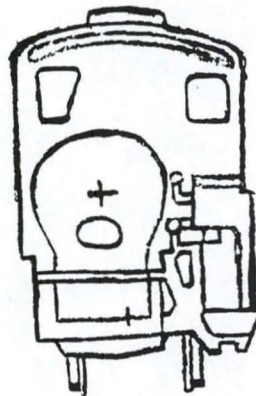
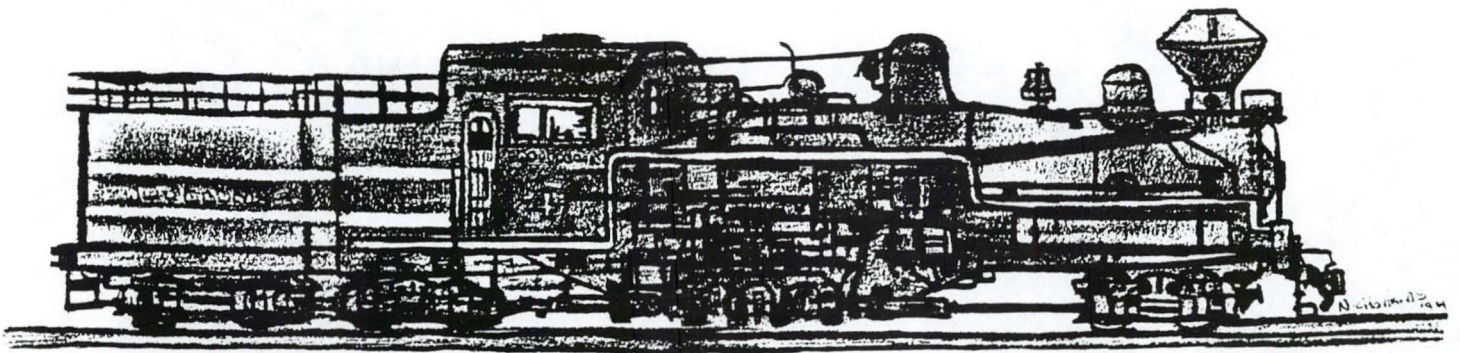


Figure 2.9 The Shay Engine featured upright cylinders right of an offset boiler. The driving rods turned a train of shafts, universal joints, and bevel gears transmitting power to the wheels.
Illustrator, Nic Hankins.

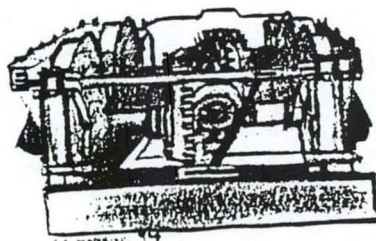
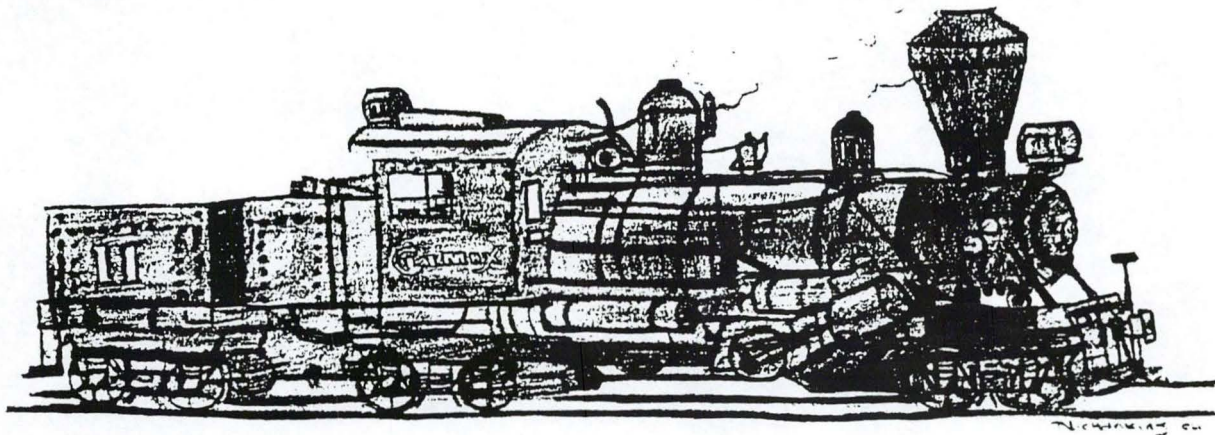


Figure 2.10 The Climax Engine was another geared engine used for logging. Illustration of the end view of a Climax Truck with the bolster removed shows how the bevel gears are staggered. *Illustrator, Nic Hankins.*



Figure 2.11 Employees of the John Heilman Lumber Company in front of the commissary. This is a good example of the makeshift ties used to construct the logging railroad. Circa 1911. *Courtesy of Elizabeth Tullock.*

CHAPTER THREE

Pre-Forest Service Logging on Lands Managed by the Nolichucky Ranger District

Walking through land managed by the Nolichucky Ranger District, one can find evidence of the former logging industry throughout the forest. Railroad beds, spikes, railing, wheels, old timber bridges, skid roads, cinders, concrete pillars, brick furnaces, harnesses for a team, chains, and grabs have all been seen by employees and forest visitors at one time or other. There were a number of industries in the area, both mineral and logging, that relied on railroads, roads and flumes for transportation. However, this paper will concentrate on two areas, Bullen Hollow and Paint Creek. (See Figure 3.1.)

Greene County, Tennessee, like many of the other communities of the time, depended on a railroad system for transportation and shipping. In 1848 a charter for the East Tennessee and Virginia Railroad Company was chartered to build a rail system between Knoxville, Tennessee and the State of Virginia. The route through Greene County was described as follows: "...Passing by Urbana Meeting House, it crosses Big Limestone at Klepper's (now Limestone), thence through Miller's farm to Cedar Branch, up Cedar Branch and across a small ridge to Simpson's Gap, passing just North of the village of Rheatown, thence by Stone Dam Camp Ground, Henderson's, Moore's, Rankin's, to Greenville. Passing through the northern skirts of the town it reaches the fork of Newport and Bull's Gap Roads..." On

February 23, 1856 the first trip was made between Knoxville and New Market, a 24 mile stretch. In 1857 there still remained a seventy mile gap in the line, most of which was in Greene County. A stageline carried passengers over that gap. By March 1858, the track was complete and trains ran through Greeneville for the first time.¹

Completion of the Southern Railroad was just the first step in industrializing Greene County.² The real boom began with the large lumber industry that migrated to the Appalachian mountains in the early 1900s.

Bullen Hollow

The largest logging operation in Greene County in the early 1900s was operated by John Heilman Lumber Company. John Heilman came to Greene County in 1910 from Reading, Pennsylvania, by way of a short stopover in Del Rio, Tennessee, lured by the area's "green gold", trees.³ He purchased land and logging rights from local residents including Charles S. Doak, a resident of Tusculum, Tennessee. Carlos Cordova, Doak's grandson who lives in the Bullen Hollow area, recalls his grandfather sold a portion of the cutover land to the Forest Service in 1936. The purchase price at that time was \$2.50 an acre, the going rate for land that had been logged. Unlogged land sold for almost three times that much, \$7.00 an acre.⁴

¹ Constance Kramer "The Railroad," *Bicentennial, 1783-1983: Greene County, 1983*: 50.

² Ibid, p. 53. In 1886, East Tennessee and Virginia Railroad Company merged with the Deep South Railroad into the East Tennessee, Virginia and Georgia Railroad. A second consolidation occurred in 1894 creating the Southern Railway.

³ Bob Hurley, "Pea Vine Railroad Represents Some of the County's Most Glorious By-gone Days," *The Greeneville Sun*, 22 August 1970.

⁴ Mr. Carlos Cordova, interview with author, Greene County, Tenn., 3 March 1994.

Heilman began the logging operation by constructing a railroad to haul the logs and lumber out of the woods. All indication is that the railroad was standard gauge, built for easy rail transfers to the Southern Railroad's mainline. It took eighteen months to build the railroad and remove the first timber from the mountains. The railroad officially, called the Greeneville & Nolichucky Railroad, was commonly referred to as the "Pea Vine." Elmer Cox, a Greeneville County historian, explained that "a pea vine is a type of morning glory vine that twists and turns every which way. Once a motorman on the Greeneville & Nolichucky was boasting about the railroad and a conductor on the Southern Railroad said 'Aw, it's nothin' but a pea vine'." The name stuck.⁵

The Pea Vine connected with the Southern Railroad three miles east of Greeneville at Snapps Ferry Road near Metals Engineering. The line then travelled south along Holley Creek, crossing through the Old Doctor Robinson home (where the Greeneville Commons shopping center stands today), through Albert Susong's property (the new Laughlin Hospital property) and behind what is now the town of Tusculum. After crossing Holley Creek numerous times, eight times in one mile, it travelled through the valley. "The line followed that valley all the way to the foot of that mountain. Now it would zig-zag, it didn't go in a straight line by any means."⁶ The railroad crossed the Nolichucky River on a wooden trestle bridge east of the Buckingham Ferry, currently the end of the Alexander Ferry Road, and headed towards the mountains. From that point it forked out and spurs ascended up the hollows.

⁵ Mr. Elmer Cox, interview with author, Greeneville, Tenn., January 1994.

⁶ Mr. Ralph Phinney, interview with author, Greeneville, Tenn., 4 March 1994.

The main line was twelve miles long with a grade from 0% to 6%. Another ten to twenty miles of railroad spurs climbed up the mountains with a drastic increase in grade.

It was common knowledge that the Greeneville & Nolichucky Railroad was built for strength and endurance rather than speed and style. The twelve mile trip from the Southern Railroad terminal at Snapps Ferry Road to the base of the mountain took two hours at a speed of six miles an hour.⁷

Untreated logs, placed about a foot apart, were used for crossties. Some were squared, but most were round and chopped slightly to fit. Locals often sold crossties. Otis Ricker recollected, "people around the community that had timber and had the right size to make a crosstie, why they'd cut the timber, take an axe and flatten each side."⁸ The most common wood used for ties was hemlock because there was no other ready market for that species. The logs were then hauled to a central location and sold to the Railroad.

The ballast or roadbed was made of plentiful local sandstone rather than the more desirable large, crushed gravel. Very little grading was required because of the route selected, though when necessary the job was accomplished with the only available equipment – a man, two horses and a very small grader with the capacity of two wheelbarrows.⁹

The railroad operated with two engines, Shay #1 and Shay #2. (See Figures 3.2 and 3.3.)

⁷ Hurley

⁸ Mr. Otis Ricker, interview with author, Greene County, Tenn., 28 February 1994.

⁹ Hurley.

The #1 engine usually ran the mainline while the #2 operated in the woods and was called the "logging train".¹⁰ The #1 engine was capable of pulling three loaded cars from the mountains to the Southern junction, but if five or six cars were used, the engine would operate in the middle of the train until it reached a point where the grade steepened. At this point the cars behind the engine were unhooked and the engine pushed the front cars to the junction, and returned to pull the remaining cars up the grade. If both engines were available the #1 engine led and the #2 engine pushed.¹¹

Though the railroad was not sleek, it was functional and transported logs, timber and supplies to and from a large sawmill located at the junction of Dry Creek and Davis Creek. A spur ascended the mountain to the Spruce Thicket area and a long spur ascended Davis Creek. It is believed that a branch went over the hill, connecting the railroad to the Jennings Creek Area.¹² Delzie Randolph recalls railroads located along Little Jennings Creek and Jennings Creek transported logs out of the woods to the John Heilman sawmill at Bullen Hollow. A horse barn, located in today's Old Forge Campground parking lot, and houses scattered up the creek were facilities associated with the operation.¹³

Two company flumes were located in Phillips Hollow and Bullen Hollow. The flumes were used to transport lumber sawn at portable mills in the mountains to the base of the moun-

¹⁰ Ricker, 24 February 1994.

¹¹ Elmer G. Sulzer, *Ghost Railroads of Tennessee*, (Indianapolis: Vane A. Jones Company, 1975) 126.

¹² Elmer G. Sulzer, p. 126. Though Sulzer references this extension in *The Ghosts Railroads of Tennessee* none of the people interviewed could remember that particular section.

¹³ Mr. Delzie Randolph, interview with author, Greene County, Tenn., 9 March 1994.

tain.¹⁴ Carlos Cordova recalls being told in the early '20s that the flumes were used to transport logs to a sawmill located near the creek.¹⁵ (See Figure 3.4.) There is no visible evidence of the flumes today. (See Figure 3.5.)

The Heilman Company's sawmill and accompanying railroad influenced Greene County in many ways. The operation employed about 300 people in its prime, probably supplying steady (although temporary) employment in the area for the first time. Not only were laborers needed to cut, haul and saw the logs, a number of people were needed to support the lumber camp and community that sprung up at the base of the mountain. (See Figures 3.6 and 3.7.) The average pay for the laborers was \$1.00 a day, considered good wages for that time.¹⁶

Most of the laborers were either local or from North Carolina. Harrison recalled that "a bunch of 'Bohunks' – we called them Bohunks, Italians" worked as logging laborers, too.¹⁷ It is known that other Italian immigrants were present in the area. Italians did the stonework and masonry on the first railroad that was built in Greeneville.¹⁸ Also an Italian contractor, Thomas D. Casale, constructed a church in the Company lumber camp.¹⁹

The Greeneville & Nolichucky railroad was built as a logging train. It was never officially a passenger or freight train, though often used as both. Sometimes boys living in the mountains

¹⁴ Sulzer, p. 126.

¹⁵ Cordova, 7 March 1994.

¹⁶ Mr. Marvin Harrison, interview with author, Greene County, Tenn., 28 February 1994.

¹⁷ Ibid.

¹⁸ Kramer, p. 52.

¹⁹ Hurley.

would take a hand car to Tusculum College to attend social and athletic affairs; one boy was killed when he fell off a car backwards. Flat cars were sometimes used to transport people to picnics and Sunday School excursions.²⁰ Margaret Lee Doak wrote in her diary about travelling on the railroad from her home in Tusculum to the family cabin located at the base of the mountains and from the cabin to a church in Bethany. (See Figures 3.8-3.11.)

August 29, 1913, Mr. Forest Justice, Mr. Pryor and Mr. Alexander returned and took us three girls to Bethany to services. We went and returned on the railroad.

Sunday, September 7, 1913, ...we walked the railroad to Bethany. Mr. Alexander and I came back on the railroad alone.

Monday, June 24, 1914, ...I walked down to Mr. Rambo's to catch the train. Had a delightful ride over. [Returning from the cabin.]

Monday, July 6, 1914, Got up very early did all the work. I walked down to Mr. White's Mill to catch the mountain train. Irene went home. I rode on up to the cabin with Papa on a flat car loaded with parts of a sawmill. Did a lot of work. I came back on a flat car loaded with furniture in time for a 12:30 dinner. The brakeman was very nice and talked to me almost all the way over for 2 men were the only others on the train. [Travelling to cabin and back to town.]²¹

Some interviewees believed that the railroad did not like to provide passenger service because the tracks were not that safe. From her diary it appears that Margaret Doak had no problem getting rides on the train. She never mentioned a charge for the transportation service, though Phinney believes there was a charge for passenger service.²²

²⁰ Sulzer, p. 128.

²¹ Margaret Lee Doak (1893-1919), unpublished personal diary, 1911-1914. Margaret Doak is the daughter of Charles S. Doak and the mother of Carlos Cordova. Margaret Doak enjoyed the family cabin in the mountains and made frequent visits, often alone.

²² Phinney, 4 March 1994.

The railroad did provide freight service to the people located along the line. Examples of items hauled included farm products, building supplies and, as mentioned in Miss Doak's diary, household supplies.

The lumber operation consisted of much more than a railroad. Logs had to be cut and brought to the sawmill, requiring a number of men to work in the woods. Of course if men work and work hard they have to eat and sleep, thus evolved the lumber camp. Built at the base of the mountain, the camp contained a commissary, office, boarding house, church, homes, and several other support buildings.

Life at the Heilman Lumber Camp was typical of many lumber camps at the time, the work arduous and the days long. Ten to twelve hour days, six days a week was the norm. Loggers didn't see the camp in daylight very often.²³ Ricker remembers large kerosene lanterns hung all over the walls of the sawmill to extend daylight.²⁴

Many of the men lived with their families in cabins built by the company. These cabins were like the railroad, simple but functional. During an on-site interview, Ricker recalled:

They built houses. Nice size houses. Nothing fancy, but nice. The company built 'em. Now they built three or four on my daddy's place, up the creek. Well this place over here...they built that for their doctor...Doctor Jordan. They built a house and when they was through with it it was yours. This over here was pretty nice, handy. It was just plain, boxed up out of planks, but nice for its day.²⁵ (See Figure 3.12.)

²³ Ed Trout, "Logging in Sevier County," unpublished typewritten manuscript, Historian's Office, Great Smoky Mountain National Park, 1985, p. 22.

²⁴ Ricker, 28 February 1994.

²⁵ Ibid.

The single workers usually lived at the boarding house. (See Figure 3.13.) The staff consisted of a manager and several cooks, who not only prepared meals, but washed dishes, made beds and did general clean up work.²⁶

If the loggers liked your cooking they would call you a "Bull Cook". If they didn't, they would call you a "Stomach Robber".²⁷ Boarders were served meals at long tables in the dining room. A typical breakfast consisted of fried potatoes, eggs, meat (ham, steak, sausage or bacon), biscuits and coffee. Dinners included meat, in-season vegetables, bread and dessert. The Heilman boarding house "served good food in superman-sized portions".²⁸

Flour was purchased in 196-pound barrels. A cook could easily use ten barrels of flour a week making large quantities of biscuits, pies and cakes to satisfy the hungry loggers.²⁹

Local farmers sold extra produce to the camp. Fresh vegetables like beans, corn, tomatoes and watermelons, and milk and butter were some of the products supplied by the local community.³⁰

Beef, sheep, and pork were typical meats consumed in the lumber camps. Side pork meat

²⁶ John R. Waite, "W.M. Ritter Company Towns," *The Blue Ridge Stemwinder* 3 (Spring 1991): 9.

²⁷ Trimble, Mr. and Mrs. T.E. Interview, 27 June 1970. Audiotape 118. Burton-Manning Collection, Archives of Appalachia, East Tennessee State University, Johnson City, Tenn.

²⁸ Kramer, p. 57.

²⁹ Trimble, Mr. and Mrs. T. E.

³⁰ Ricker and Harrison, 28 February 1994.

was used if other meat was scarce. At one lumber camp where Mr. and Mrs. T.E. Trimbel cooked, loggers called side meat “‘long hog’... they’d been eatin’ on a side of it for five years and never came to a ham or shoulder yet.”³¹

The Heilman Lumber Company camp, like many camps at that time, ran a “commissary” or company store. (See Figure 3.14-3.17.) This building was often the hub of the community: it not only offered fresh produce, canned goods, dry goods, hardware, tobacco, clothing and almost anything else the logger and his family needed, it contained the company office and town post office. Margaret Doak (1911) wrote: “Got up very early went to the store to mail our letters.”³² Other people in the community unassociated with the industry also bought from the commissary. Ricker’s family later used another logging company’s store because it was closer to their house.³³

Commissaries took cash or company “scrip”, sometimes called “dugaloo”, or “doogaloo” for merchandise. In some cases employees never earned cash; pay was in the form of groceries and overalls.³⁴ Country music singer Tennessee Ernie Ford sang “I owe my soul to the Company store,” a line that at times became reality. No reference to the Heilman company’s payroll and store policy has been found. However, Delzie Randolph recalls his father was sometimes paid in gold.³⁵

³¹ Trimble, Mr. and Mrs. T. E.

³² Doak, 1911.

³³ Ricker and Harrison, 28 February 1994.

³⁴ Trout, p. 22.

³⁵ Randolph, 9 March 1994.

The logging industry was hard work, and therefore, recreation was considered very important. Leisure activities that played a role in the Heilman camp were pitching horseshoes, wrestling, and shooting contests.³⁶ If feasible, men took Saturday evenings and Sundays to travel to their hometowns and visit their wives and families.

Visiting and "singings" were also camp activities, as related in Doak's diary:

August 29, 1913, I took our supper at an old sawmill shed. We came down to Mr. Hinson's and spent another pleasant evening listening to them play.

Saturday, September 12, 1913, Mr. Baldwin came from Mr. Hinson's down the railroad with us to Mr. Brandon's where Miss Azdell and Miss McGregor were attending a singing.³⁷

In July, 1913 the John Heilman Lumber Company leased Dunn-Oliver, a New Jersey corporation, the lumber rights and personal property including:

...saw-mills, engines, railroad equipment and all character and kind of property used by the said John Heilman Lumber Company at the time of this conveyances situated on the property.³⁸

Dunn-Oliver Lumber Company promptly sublet the lease to the White Lumber Company.³⁹

The latter continued operating on the land until 1918 when the readily accessible timber

³⁶ Hurley.

³⁷ Doak, 1913.

³⁸ USDA Forest Service, Cherokee National Forest, John Heilman Lumber Company, Tract #9, Abstract of Title.

³⁹ May 5, 1914 the John Heilman Lumber Co. agreed with the Dunn-Oliver Lumber Company's decision to transfer its rights to the White Lumber Co.. Making the Memorandum of Agreement in the Title Bond and Agreement Book read John Heilman Lumber Company to White Lumber Company rather than Dunn-Oliver Lumber Company to White Lumber Company.

supply had been harvested. The camp closed, the men went home or to other lumber camps and the sawmill was quiet. In 1919, the bridge over the Nolichucky River washed out. The locomotives were north of the river, but the rest of the cars were stranded at the mill site. This ended the Greeneville & Nolichucky Railroad. The engines were auctioned off, Shay #1 headed for Piave, Mississippi and Shay #2 to Tuscaloosa, Alabama.⁴⁰ Through the years the rail was sold, the ties were used for firewood and the commissary, boarding house and other buildings were left to deteriorate and eventually disappear, leaving Greene County a "Ghost" in its place.

Paint Creek

Much less is known about the sawmill and railroad that operated in the Paint Creek Area of Tennessee. In the early years of this century, there were two large landholders in the area, Patterson Lumber Company and The Tennessee, Coal, Iron & Railroad Company, both bordering John Heilman Lumber Company.

Patterson Lumber Company incorporated in Greene County, Tennessee in August, 1906.

The purpose of the corporation was stated in the Charter of Incorporation (1906) as follows:

"For buying, owning, holding, leasing, and controlling lands, timber lands, timber, lumber, logs, bark, cutting, hauling sawing, manufacturing, buying and selling same, building railroads, tramroads, flumes and other ways for handling and manufacturing same and various other things enumerated."⁴¹

⁴⁰ Sulzer, p. 128.

⁴¹ USDA Forest Service, Cherokee National Forest, Patterson Lumber Company, #6 Abstract of Title, p. 86.

Later that year, a sister corporation was formed, Paint Rock Flume and Transportation Company. It was developed for the purpose "of organizing, operating and equipping flumes..."

The corporation was given the power to:

...erect, equip, and operate flumes for the reception of and passage of water, for the floating of timber, lumber and tan bark...have the right to lease or purchase all necessary real estate for the erection of buildings as is necessary to carry on its business. Said corporation shall have the right to construct, equip and operate flumes, and for this purpose shall have the right to condemn a right of way not more than thirty feet over the lands of private individuals in pursuance of the general law authorizing condemnation...⁴²

Patterson Lumber Company constructed a large bandsaw on the south side of Paint Creek and cut and manufactured the merchantable timber on the land they acquired. (See Figure 3.18-3.21.) The sawmill contained a six foot Clark bandmill, saw dust conveyors, gang edger and cut-off, two 90 Horsepower boilers, belting, piping and saws. Included in the property were two circular sawmill outfits.⁴³ These were probably used to finish cut sawn lumber or were set up as portable mills in the mountains.⁴⁴

The operation began sawing between 1906 and 1908. As necessary for the remote conditions, a lumber camp was constructed near the sawmill. The camp was located in a flat along Paint Creek, and included a commissary, small family homes and several buildings to board single men. Wayland Tarlton described the group dwellings as "buildings that would sleep six to eight men at a time...I reckon they had a dining hall to feed them. They'd stay during the

⁴² Ibid, p. 348.

⁴³ Ibid. P. 148.

⁴⁴ Mr. Gene Hopson, USDA Forest Service, interview with author, Greene County, Tenn., March 1994.

week and some would go home on the weekends.”⁴⁵

Paint Rock Flume and Transportation Company acquired a 30-foot right-of-way and built a flume to transport the sawn lumber. The flume, about four miles long, began at the sawmill and followed Paint Creek south to Paint Rock and over the French Broad River to the Southern Railroad line.⁴⁶ (See Figure 3.22.) The lumber fell off the saw directly into the flume. Maintaining the flume was a time-consuming task. A worker was responsible for maintaining a particular section and would walk the flume to clear it of debris and keep the lumber moving. The lumber was then taken off the flume and placed on railroad cars for distribution.⁴⁷

Logs were brought from the mountains to portable mills and the main band saw along Paint Creek by railroad. The Abstract of Title of Robert Patterson (1923) refers several times to tramways and railroads, but does not mention the precise location of the lines.⁴⁸ However, Wayland Tarlton recalls “talk of a railroad along Little Paint Creek”.⁴⁹ Nolichucky District employees verify evidence of a railroad along Little Paint Creek and Paint Creek.

About 1914 a flood washed away the bridge of the flume where it crossed the French Broad River. Another corporation, Paint Creek Flume and Transportation Company, was formed to replace Paint Rock Company, but never became operational. Thus the flume and the

⁴⁵ Mr. Wayland Tarlton, interview with author, Cocke County, Tenn., 9 March 1994.

⁴⁶ Patterson Lumber Company, #6 Abstract of Title, p. 68.

⁴⁷ Tarlton, 9 March 1994.

⁴⁸ Patterson Lumber Company, #6, Abstract of Title, p. 94.

⁴⁹ Tarlton, 9 March 1994.

right-of-way were abandoned and never used again. In 1915 Patterson Lumber Company ceased operations.⁵⁰

The exact reason for the discontinued operation is not known; events leading to its demise are another study. Patterson Lumber Company and its sister company, Paint Rock Flume and Transportation Company were very controversial; pages of litigation are included in the 1923 Abstract of Title. In 1911 the stockholders of the Flume Company attempted to remove the officers from office.⁵¹ In 1914 O.H. Viall Stocking Company, et al. brought charges against Patterson Lumber Company for fraud and collusion. Patterson Company was also charged with mismanagement and misappropriation of funds.⁵²

In the fall of 1915 both companies, Patterson Lumber Company and Paint Rock Flume and Transportation Company, began bankruptcy proceedings. The property was auctioned from the Greene County Courthouse steps.⁵³

⁵⁰ Patterson Lumber Company, #6, Abstract of Title, p. 361.

⁵¹ Patterson Lumber Company, #6, Abstract of Title, p. 313-319.

⁵² Ibid. p. 319. It appears both parties were found at fault.

⁵³ Ibid. p.31-32. The property was auctioned several times. It appears the prices received were not adequate. At the March 8, 1919 auction, 6500 acres of land and property including; sawmill, boilers, conveyors, etc. were sold for \$8700 or \$1.34 per acre. On March 15, 1919, the defendant, Hugh G. Patterson, requested that the sale to George C. Taylor be set aside and the bid reopened. The same day the Court ordered the bidding be reopened and remain open until March 22, 1919, 2:00 p.m. The report of sale was filed. On March 24, 1919 the report was set aside and the bids reopened. The bidding remained open until April 2, 1919. The property was purchased by the First National Bank of Morristown and the estate of Cornelia G. Patterson.

The United States Government purchased the 6,500 acre tract from the Patterson Company in 1921 for \$4.50 per acre.⁵⁴ By that time, the equipment and property had deteriorated from laying idle for six years and the operation was well on its way to joining Greene County's "Phantom Railroad" system.

⁵⁴ Ibid, p. 1-6.



Figure 3.1. Research Areas



Figure 3.2 The Greenville & Nolichucky Railroad's #1 engine, a B-type Shay, is loaded for its return trip to Greenville. Circa 1911. *Courtesy of Elizabeth Tullock.*



Figure 3.3 The Greenville & Nolichucky Railroad's #2 engine, a B-type Shay, is assembled for a trip to town. Circa 1911. *Courtesy of Elizabeth Tullock.*



Figure 3.4 The Doak and Cordova family at the dam located on Dry Creek. The sawmill was located close to the dam. Carlos Cordova is the young boy. Circa 1920. *Courtesy of Carlos Cordova.*

Approximate Location of John Heilman Lumber Company's Rail Lines and Flumes

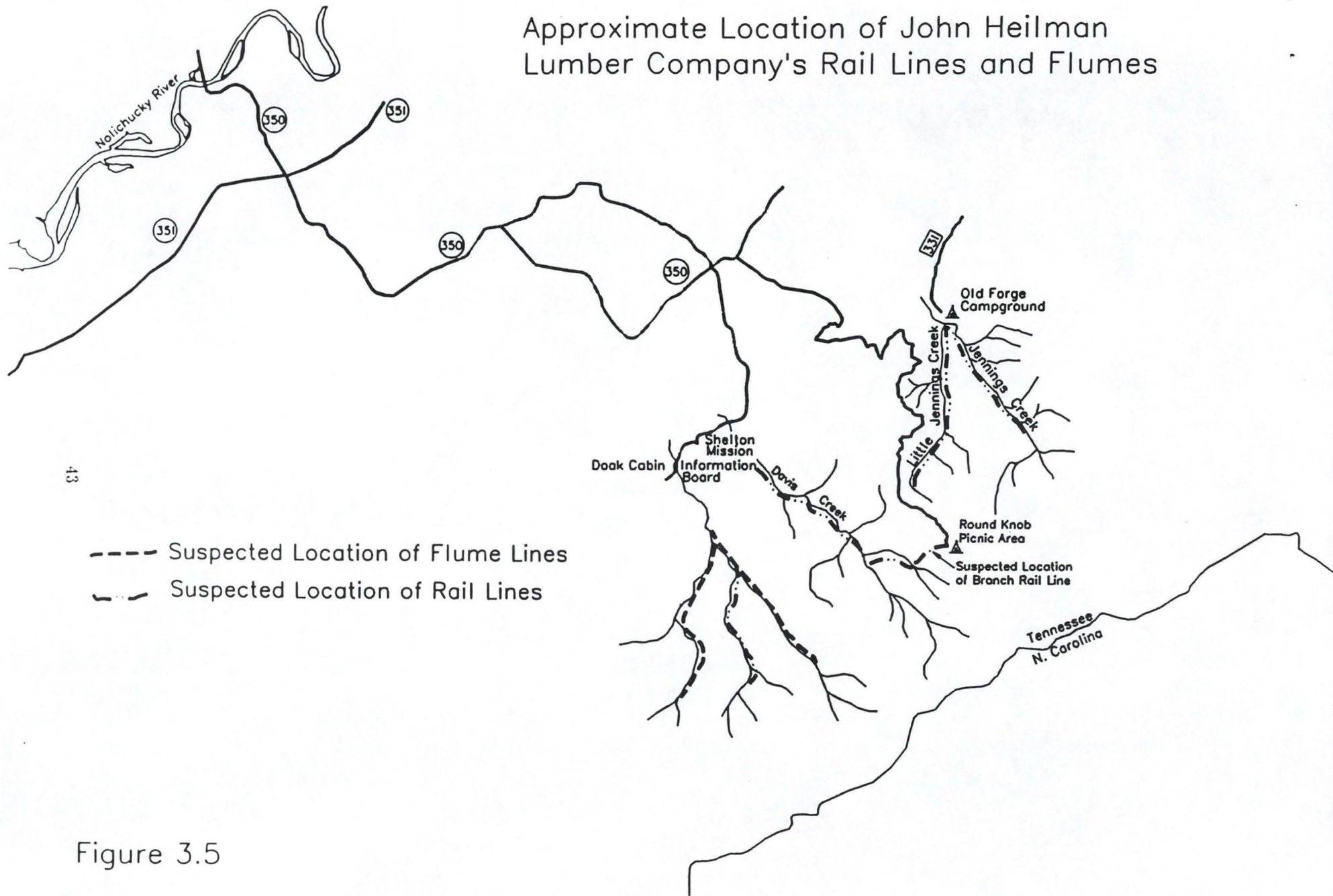


Figure 3.5



Figure 3.6 Loggers and skidder crew (skinners) of John Heilman Lumber Company were the backbone of the lumber operation. Circa 1911. *Courtesy of Elizabeth Tullock.*



Figure 3.7 Approximately the same location, 1994. Note the regrowth of the forest. *Photo by author.*



Figure 3.8 Margaret Lee Doak (1893-1919). Circa 1913. *Courtesy of Carlos Cordova.*



Figure 3.9 The Doak family cabin located at the base of the mountain in the midst of the John Heilman Lumber Company camp. This is the cabin Margaret Doak spoke of so fondly in her diaries. Circa 1912. *Courtesy of Carlos Cordova.*



Figure 3.10 Charles S. Doak on the porch of the Doak Cabin. Circa 1925. *Courtesy of Carlos Cordova.*



Figure 3.11 Carlos Cordova standing on the remnant steps of the Doak cabin, 1994. *Photo by author.*



Figure 3.12 Dr. Jordan's home built by the Lumber Company, 1994. The house was plain, "...but nice for its day". *Photo by author.*



Figure 3.13 The main boarding house at the John Heilman Lumber Company camp. The tracks for the Greeneville & Nolichucky Railroad are in the foreground. Circa 1911. *Courtesy of Elizabeth Tullock.*



Figure 3.14 John Heilman Lumber Company's commissary and main office (wing at left). Circa 1911. *Courtesy of Elizabeth Tullock.*



Figure 3.15 The same location, 1994. The railroad bed is in the foreground. *Photo by author.*



Figure 3.16 Remnants from the commissary are scattered along the ground, 1994. *Photo by author.*

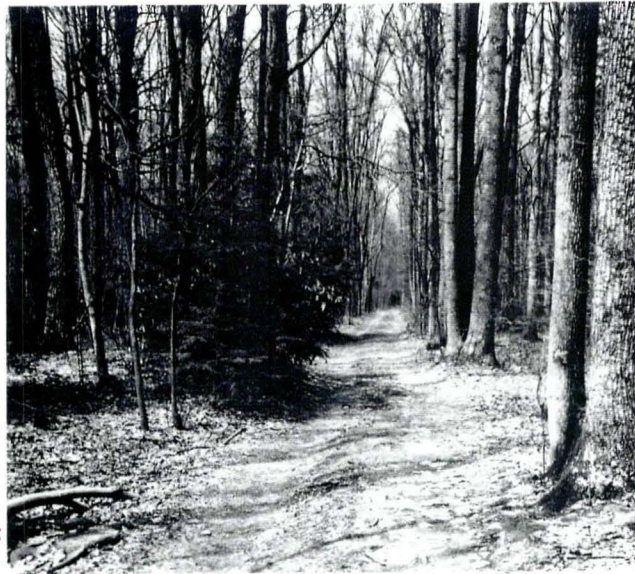


Figure 3.17 Railroad bed leading from the commissary site back to Greeneville, 1994. *Photo by author.*



Figure 3.18 The concrete foundation of the Patterson Lumber Company's 6-foot Clark Bandmill, located downstream, 1994. *Photo by author.*



Figure 3.19 The upstream concrete foundation of the bandmill, 1994. *Photo by author.*



Figure 3.20 A pile of rock and brick, remnants of the boilers, 1994. *Photo by author.*



Figure 3.21 Cable and chain scars on trees, evidence of the activity that once occurred on this site, 1994. *Photo by author.*

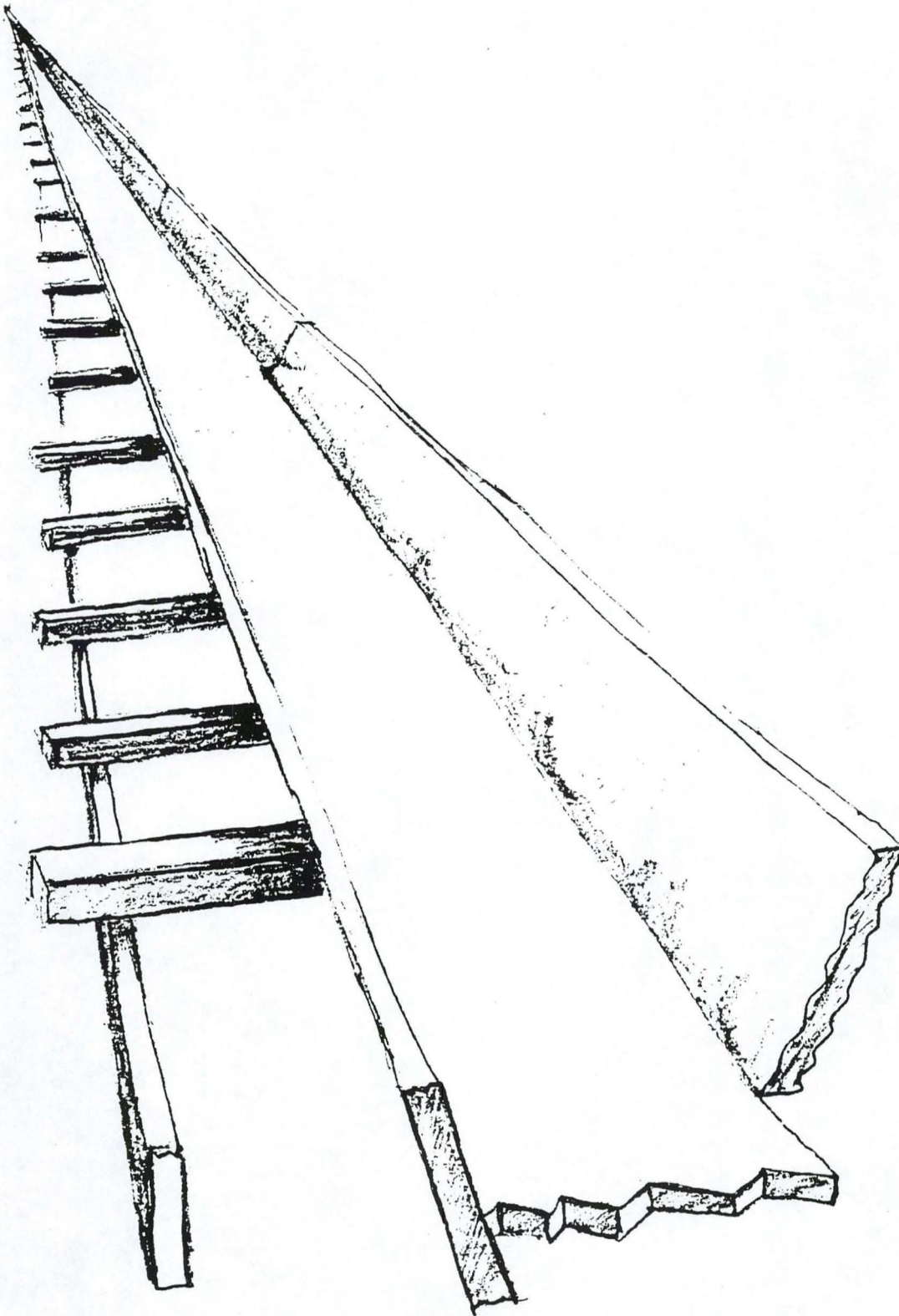


Figure 3.22 A flume similar to this transported lumber from the Patterson sawmill about four miles to the French Broad River where it was loaded on rail cars. *Illustrator, Tammy Rowe.*

Approximate Location of Patterson Lumber Company's Rail Lines & Flumes

----- Suspected Location of Flume Lines

- - - - - Suspected Location of Rail Lines

53

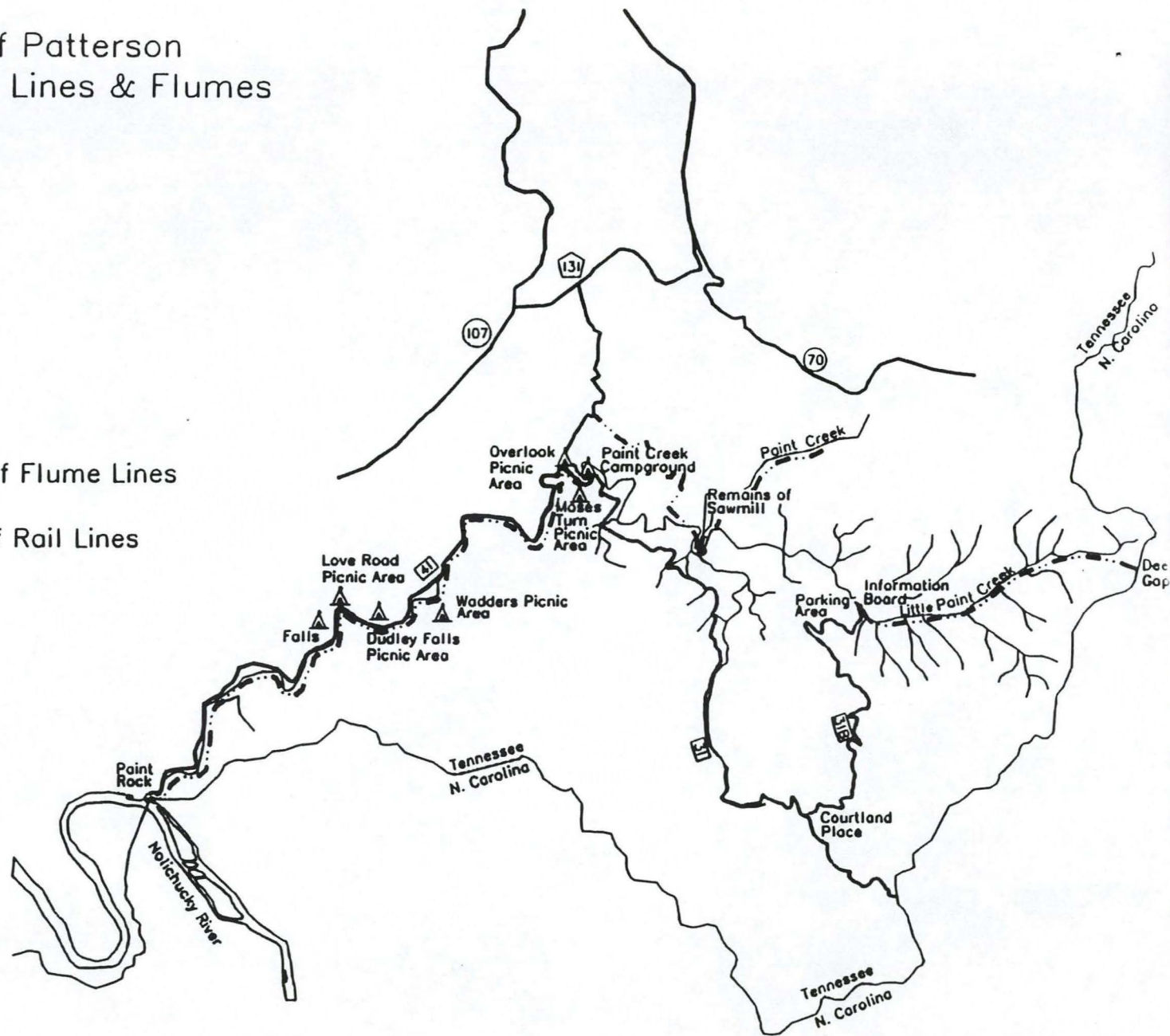


Figure 3.23

CHAPTER FOUR

Interpreting the Greene County “Phantom Railroads”

The literature research, photographs, and more importantly, personal interviews, have created insight into the industries and the people who lived and worked in local logging communities. This research on the early 1900s logging and railroad industry located on the Nolichucky Ranger District, will be used to bring to life the spirits of these “Ghosts” to forest visitors.

Industry played a significant role in developing the individual communities, and Greene County. But in the same decade as the peak of industrialized logging in Greene County and elsewhere in the Appalachians, the USDA Forest Service was introduced into the area. Major portions of cutover lands were purchased through authorization of the Weeks Act (1911).

Included in this chapter are interpretive inventories¹ and interpretive panel mock-ups for both Little Paint Creek and Bullen Hollow. A table correlating the historic railroad beds and the district’s current trail system at these two areas is also included.

¹ Inventories follow typical format from Cherokee National Forest Interpretive Master Plan, and will be included therein.

Bullen Hollow Trailhead Interpretive
Site Inventory

Cherokee National Forest
Nolichucky Ranger District
March 17, 1994

Site Index No:

Site Name: Bullen Hollow Trailhead

Site Location: From Greeneville, take Highway 350 south 10.7 miles to Shelton Mission Road. Turn right and travel 1.9 miles. Turn left into Bullen Hollow.

Site Description: Undefined trailhead for Margarette Falls Trail (#189), Bullen Hollow ORV Trail (#2), Phillips Hollow Trail (#17), and Dry Creek fishing access. Entrance to Bullen Hollow is privately owned land; owner allows trailhead parking. Forest Service land begins approximately half a mile from Shelton Mission Road. Road is extremely rocky/rough and not accessible for passenger cars. Existing trailhead area and road are former locations of Doak Cabin and logging camp.

Seasonal Accessibility: Accessible year round.

Interpretive Significance: This area was formerly site of John Heilman lumber camp, including boarding house, sawmill, horse barns, private residences and railroad line. The Bullen Hollow/Round Knob area was logged between 1910-1918. Commercial logging and railroads played a significant role in development of the local community and Forest Service history.

Site Index No:

Site Name: Bullen Hollow Trailhead

Interpretive Theme:

...Rhythm of life of certain community members and Heilman Company employees.

Site Objectives:

Short Term

...To create an interpretive opportunity that conveys an association with residents and activities in this place in the early 1900s.

...Install directional signs to trailhead parking.

Long Term

...Remove existing trailhead from private land; construct 1/2 mile of road on right-of-way and formalize trailhead parking on Forest Service land. Move existing board to new trailhead.

Interpretive Program Objectives: The majority of visitors to this site will learn about:

...aspects of the daily lives of local residents and employees.

...Southern Appalachians logging techniques between 1900 and 1920.

...modes of transporting logs/lumber.

...Forest Service successes at ecosystem recovery of cutover Southern Appalachian forestlands.

Interpretive Concepts:

1. How local people used the Heilman Company's amenities (commissary, railroad to town, etc.).
2. Local sentiment concerning this industry, and its effects on local economy and landscape.
3. Logging methods in the early 1900s in the Southern Appalachians.
4. Modes of transporting logs/lumber from forest to mill to market.
5. Recovery of forest through Forest Service efforts.

Site Index No:

Site Name: Bullen Hollow Trail

Interpretive Mode(s): BY PRIORITY

1. Interpretive panel including photographs and captions on trailhead information board.
2. One person interpretive skit discussing impact of logging/railroads on a Greene County community, based on diary of Margaret Doak (circa 1911-1913) and research from "Phantom Railroads of Nolichucky Ranger District" (1994) by Cheryl Summers.
3. Forest "family of maps" brochure on Nolichucky Phantom Railroads, to include location map and history of local railroads.

Site Index No:

Site Name: Bullen Hollow Trail

Justification:

...Logging in the Appalachians is a major component of regional and local Forest Service.

...This is the first specific interpretive development of many potential opportunities on the Cherokee National Forest to describe the impact logging and railroads had on development of local economy, communities, and the National Forest. Regionally, the Great Smokey Mountain National Park developed "Tremont Logging History" auto tour in 1990.

...Information board on route accessing three trails and a fishing site to be installed at existing informal trailhead parking area.

Planners Comments:

...Right-of-way from trailhead on private land to Forest Service land was purchased in 1992. Additional funding is needed to develop road and formalized trailhead.

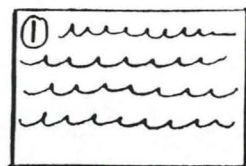
...Present owner, Carlos Cordova, provided oral history, photos, diary, etc. for this interpretive site, and permits public parking at existing trailhead on his land.

...Further information, see Cheryl Summers' paper "Phantom Railroads of the Nolichucky Ranger District" (1994), Nolichucky Ranger District office, Cherokee National Forest.

...Maps from Summers' paper can be used for future brochure. Additional funding will be necessary to develop and print that brochure which would be available at District office, Paint Creek Campground and possibly at trailhead information board.

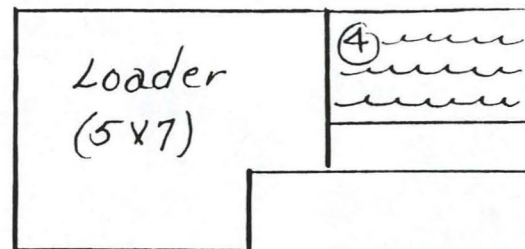
Interpretive Panel for Bullen Hollow Trailhead

Welcome to a
Ghost town...



Rail Line
(5x7)

Map of
Rail Lines
(9x11)

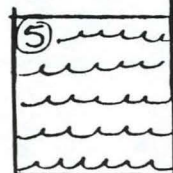
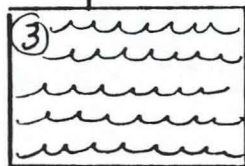
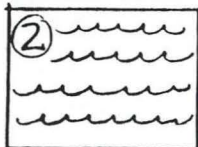


Loader
(5x7)

Oxen
(5x7)

Doak Cabin
(5x7)

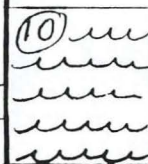
Margaret
Doak
(5x7)



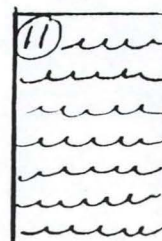
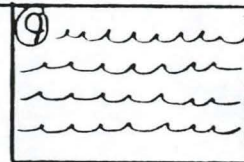
Teams in
front of
buildings.
1911
(4x6)

8

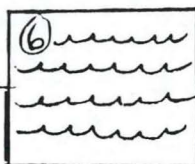
same location
1994
(4x6)



Engine #1
(8x10)

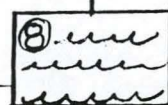
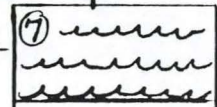


Commissary
(5x7)



Music
(5x7)

Boarding
House
(5x7)



4 ft.

← See next page for interpretive text.
3/8th inch equals 2 inches

3 ft.

Interpretive Panel for Bullen Hollow Trailhead

NOTES:

1. John Heilman came to Greene County in 1910, lured by the area's "green gold" (trees), to begin John Heilman Lumber Company. In the process he built railroad lines, sawmills, and a community. Local leaders welcomed the new investors because of the jobs and modern conveniences it offered. In 1918 the camp closed, the men left, and the sawmill was quiet. Through the years the rail was sold, the ties were used for firewood and the buildings were left to disappear, leaving Greene County a "Ghost" in its place.
2. Margaret Lee Doak (1893-1919), a young woman during the time of the logging operation, visited the family cabin located at the base of the mountain often during the logging years. *Photographs courtesy of Carlos Cordova.*
3. Isolated areas of the mountain were opened up by spiderwebs of rail, tram, and flume lines. The railroad wasn't sleek, but it was functional and transported logs and supplies to and from a sawmill located at the junction of Dry Creek and Davis Creek. Spur rail lines went up Spruce Thicket, Davis Creek, Little Jennings, and Jennings Creek. Flumes were located in Phillips Hollow and Bullen Hollow.

"Packed our dinner went to the Margarett Falls then up to cliff on the tram road."
Margaret Doak, Monday October 23, 1911.
4. This arch-roofed Barnhart loader had a swivel crane to pick up the logs and place them on a flatcar. When one car was filled, the loader moved onto the next car along short sections of transfer rails. Circa 1911. *Photo courtesy of Elizabeth Tullock.*

"Took our supper up to end of railroad and ate it. Watched them load logs on the train..." Margaret Doak, August 29, 1913.
5. Horses, mules or oxen used in pairs hauled logs out of the woods. A "team" consisted of one or more pair of horses or mules, and a "yoke" was a pair of oxen.

"This a.m. Mr. and Mrs. Turan, Lynn, Papa and I walked up to the Margarett Falls. I watched the loggers work with oxen." Margaret Doak, Friday, June 14, 1913.
6. The Heilman Lumber Company camp, like many camps at that time, ran a "commisary" or company store. The building was often the hub of the community: it not

only offered fresh produce, canned goods, dry goods, hardware, tobacco, clothing and almost anything the logger and his family needed, it contained the company office and town post office. Circa 1911. *Photo courtesy of Elizabeth Tullock.*

"Got up very early went to the store to mail our letters." Margaret Doak, Saturday, October 21, 1911.

7. Many of the men lived with their families in cabins built by the company. Single workers usually lived at the boarding house. Boarders were served meals at long tables in the dining room. It was said the Heilman boarding house "served good food in superman-sized portions." Circa 1911. *Photo courtesy of Elizabeth Tullock.*

8. For the hard-working loggers recreation was considered very important. Leisure activities that played a role in the Heilman camp were pitching horseshoes, wrestling, and shooting contests. Visitings and "singings" were also camp activities.

"I took our supper at an old sawmill shed. We came down to Mr. Hinson's and spent another pleasant evening listening to them play." Margaret Doak, August 29, 1913.

9. The #1 engine, a B-type Shay engine, is loaded for its return trip to Greeneville. John Heilman Lumber Company's railroad, Greeneville & Nolichucky Railroad, was commonly called the "Pea Vine". Elmer Cox explains "a pea vine is a type of morning glory vine that twists and turns every which way. Once a motorman on the Greeneville & Nolichucky was boasting about the railroad and a conductor on the Southern Railroad said 'Aw, it's nothin but a pea vine.'" The name stuck.

The railroad was not built to provide passenger or freight service, but was used for both. Circa 1911. *Photo courtesy of Elizabeth Tullock.*

I walked down to the Mr. White's mill to catch the mountain train...I rode on up to the cabin with Papa on a flatcar loaded with parts of a sawmill...I came back on a flatcar loaded with furniture in time for a 12:30 dinner. The brakeman was very nice and talked to me almost all the way over for 2 men were the only others on the train." Margaret Doak, Monday, July 6, 1914.

10. Heilman Lumber Company's "skinner" teams lined up in front of one of the mill buildings. Circa 1911. *Photo courtesy of Elizabeth Tullock.*

The bottom photograph is approximately the same location 83 years later, 1994.

11. GHOST TRAIN

They built the little roads of steel,
Through mountains and through hills,
And they gave their sweat and substance,
To reach the mines and mills.

To the forests and the coal fields,
By stream they said we'd go,
And the iron web was woven,
Just a few short years ago.

Now the trains are only phantoms,
On a haunted right of way,
But I thought I heard a whistle,
In the wind of yesterday.

Then a shadow and a movement,
I thought that I could see,
'Twas a ghost train rumbling softly,
Through the hills of Tennessee.

Thomas E. Bailey

Little Paint Creek Trail Interpretive
Site Inventory

Cherokee National Forest
Nolichucky Ranger District
March 17, 1994

Site Index No:

Site Name: Little Paint Creek Trail

Site Location: From Paint Creek Campground: Take FDR 31 (left fork) 4.1 miles, turn left onto FDR 31B. Travel 3.5 miles to trailhead parking area.

Site Description: A 3.0 mile trail meandering along Little Paint Creek is located on the site of an historic railroad bed. Easy four foot wide trail, terminates at the Appalachian Trail. The trail crosses tributaries to Little Paint Creek numerous times. There are no bridges, but there are stepping stones and logs to aid creek fording.

Seasonal Accessibility: FDR #31B leading to the trailhead is closed seasonally, from December 15 to March 15. Seasonal high water may prevent use of stepping stones.

Interpretive Significance: Most of this trail is an old railroad bed used when logging the area between 1906-1915. Cut logs were hauled along this route to the Patterson Lumber Company's bandsaw mill located about 1 mile east of Paint Creek Campground. Remnants of the railroad include old Hemlock bridges, iron wheels and the indentions of cross-ties. Limited rail systems like this played an important role in commercial logging and are significant to the history of the Forest and community.

Site Index No:

Site Name: Little Paint Creek Trail

Interpretive Theme:

... Commercial logging practices and its effects on the resource between 1900-1920 in Greene County, Tennessee.

... Methods of transportation for logs and finished lumber.

... Large tracts of cutover land became national forest lands in the eastern United States after passage of the 1911 Weeks Act.

Site Objectives:

...To preserve and maintain historical remnants along the trail.

...To create interpretive opportunity that conveys changes to this landscape during the 1900s.

Interpretive Program Objectives: Visitors to the trail would gain an appreciation and understanding of:

...Southern Appalachian logging techniques between 1900-1920.

...modes of transporting logs/lumber.

...Forest Service successes at ecosystem recovery of cutover Southern Appalachian forestlands.

Interpretive Concepts:

...Remnants of commercial logging operation.

...Logging methods in the early 1900s in the Southern Appalachians.

...Ingenuity of modes of transporting logs/lumber from forest to mill to market.

...Relationship of logging and railroad to the economy and landscape of the local community.

...Recovery of forest through Forest Service efforts.

Site Index No:

Site Name: Little Paint Creek

Interpretive Mode(s): BY PRIORITY

1. Interpretive panel including photographs and captions on trailhead information board.
2. One person interpretive skit discussing impact of logging/railroads on a Greene County community, based on diary of Margaret Doak (circa 1911-1913) and research from "Phantom Railroads of Nolichucky Ranger District" (1994) by Cheryl Summers.
3. Forest "family of maps" brochure on Nolichucky Phantom Railroads, to include location map and history of local railroads.

Site Index No:

Site Name: Little Paint Creek

Justification:

...Logging in the Appalachians is a major component of regional and local Forest Service.

...This is the first specific interpretive development of many potential opportunities on the Cherokee National Forest to describe the impact logging and railroads had on development of local economy, communities, and the National Forest. Regionally, the Great Smokey Mountain National Park developed "Tremont Logging History" auto tour in 1990.

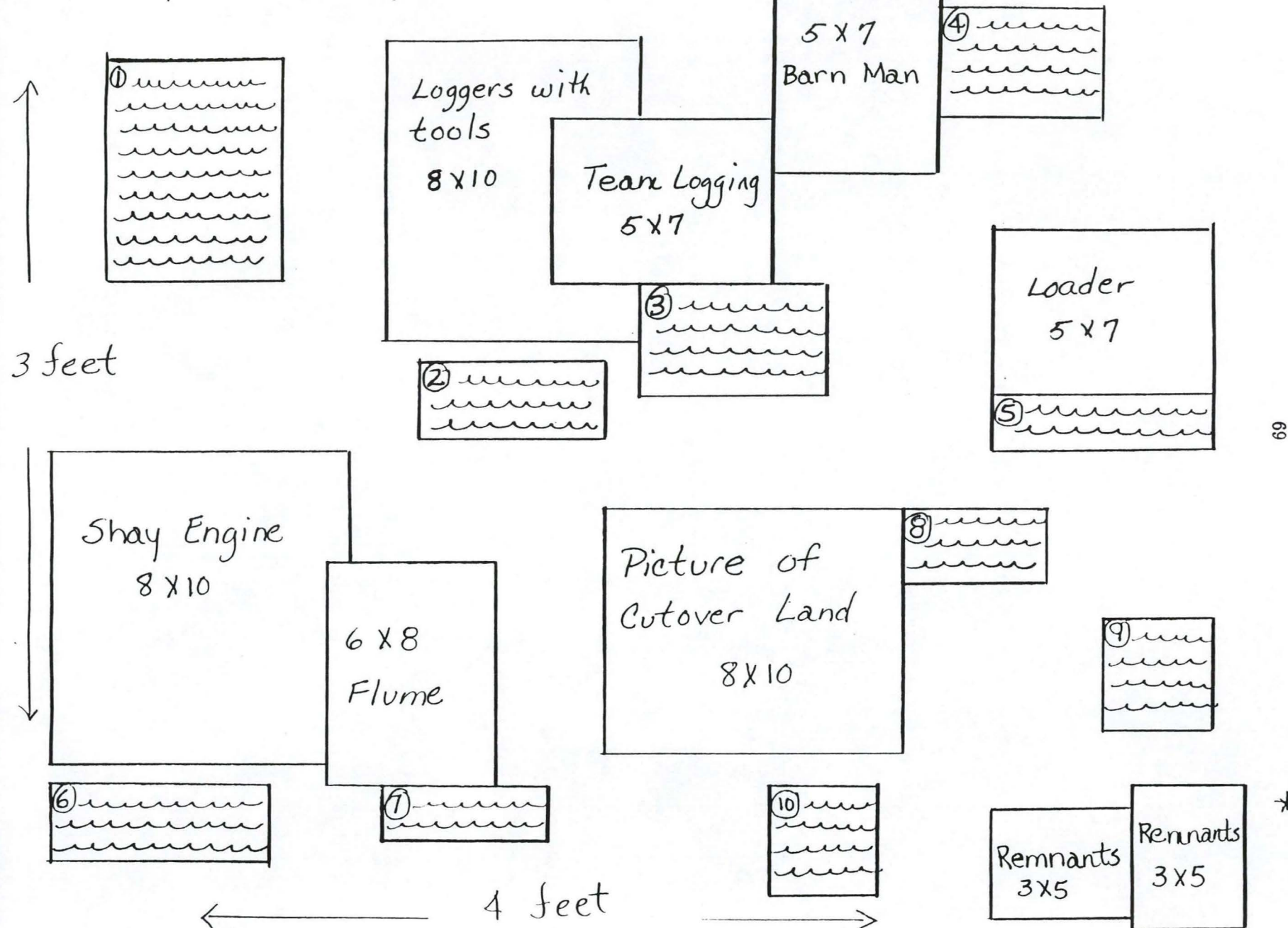
...Information based on route accessing two trails; trailhead interpretation utilizes existing information board and parking; area is remote; other modes are subject to vandalism and higher maintenance.

Planners Comments:

-Maps from Summers' paper can be used for future brochure. Additional funding will be necessary to develop and print that brochure which would be available at District office, Paint Creek Campground and possibly at trailhead information board.

Interpretive Panel for Little Paint Creek Trailhead

What happened here?



• See next page for interpretive text.
3/8th inch equals 2 inches

* Photos of onsite remnants provide alternate experience for those who can't hike the trail.

Interpretive Panel for Little Paint Creek Trailhead

NOTES:

1. Patterson Lumber Company logged in this area between 1906 and 1915. The logs on this 5400 acre tract of land were used to supply raw materials to their 6-foot bandmill located east of Paint Creek Campground. A lumber camp sprang up near the sawmill to support the industry. It included a commissary, small family homes and buildings to board single men.
2. In the early 1920s a standard saw team consisted of three men – a lead chipper and two sawyers. The first step in felling a tree was chopping a lead; the first cut in a tree that dictates the direction of the fall. The sawyers would then step in and fell the tree by making a back cut with a 6-8 foot long crosscut saw.
3. A "team" of horses and mules or a "yoke" of oxen were used to haul or "skid" logs out of the woods.
4. Most teams were owned by the logging companies and were well cared for by the drivers and barn man. According to one source "one lumber company told the foreman to take good care of the horses and mules; for if a mule got killed the company had to buy another, but if a man were killed they did not." *Courtesy of C.C. Tiller Collection, Archives of Appalachia.*
5. This arch-roofed Barnhart loader loaded logs on to railcars. The steampowered machine moved on rails on top of the flatcars. The car closest to the engine was loaded first and the loader moved on to the next car along short sections of transfer rails. Circa 1911. *Courtesy of Elizabeth Tullock.*
6. Powerful geared engines that could function on 60% grades hauled logs to the sawmill located along Paint Creek. Note the two domes on top of the engine. One is a pressure release for steam and the other a sand hopper that scattered sand on the rails in front of the wheels for traction.
7. A flume about four miles long transported sawn lumber from the mill along Paint Creek, across the French Broad River. There it was loaded onto rail cars.
8. In 1921 when the USDA Forest Service acquired this land under the authority of the Weeks Act (1911) it probably looked like this.

9. We invite you to stroll along this 3.0 mile trail and observe how the forest has recovered under Forest Service management.

Look closely. For some of the phantoms of the Patterson Lumber Company still remain; hemlock bridges, iron wheels and indentions of cross ties.

10. The saws have stilled, the engines' whistles don't blow, the tracks are gone "...but it takes little imagination to look at these inspiring mountains, gaze into the gorges, hear the whistles of the locomotive, and Listen to their Stack Talk." CAN YOU HEAR IT???

Historic Railroad Lines on Nolichucky Ranger District Trails

Trails associated with John Heilman Lumber Company:

Railroad Line or Flume Forest System Trail

Davis Creek	Davis Creek, #19
Phillips Hollow	Phillips Hollow, #17
Bullen Hollow	Bullen Hollow ORV, #2 *
Spruce Thicket	Spruce Thicket Trail **
Little Jennings Creek	Little Jennings Creek, #195
Jennings Creek	Jennings Creek, #21

Trails associated with Patterson Lumber Company:

Railroad Line Forest System Trail

Paint Creek	Paint Creek, #10
Little Paint Creek	Little Paint Creek, #11

* Today's trail is probably not representative of historic flume route.

** This trail was taken out of the forest system, though it is still used by local hikers.

CHAPTER FIVE

Conclusion

Northeast Tennessee was a resource paradise with large quantities of minerals like iron, manganese, and bauxite, and large stands of merchantable timber.¹ Railroads helped make the paradise accessible. In the late 1800s and early 1900s standard and narrow gauge railroad lines, both common lines and private industrial lines, were built throughout Northeast Tennessee to extract these resources and transport them to markets. When areas became logged out, minerals were depleted or mining became unprofitable, railroad lines were pulled up and moved to new areas. Many of the activities of these temporary rails were never recorded; to retrace all of the former locations would be almost impossible.²

This research has just begun to capture the essence of the logging and railroad industry on the northern half of the Cherokee National Forest. The sites discussed in this paper are just two of the "ghost railroads" on the northern portion of the Cherokee National Forest. There are many others that require additional research to determine their importance as interpretive sites. A brief history and a location map of some known sites are available in Appendix II and Appendix III. Appendix IV contains a list of lumber companies known to

¹ Elmer G. Sulzer, *Ghost Railroads of Tennessee* (Indianapolis: Vane A. Jones Company, 1975), p. 219.

² Ibid.

have operated prior to 1930 on what is now Cherokee National Forest land.

To interpret the rich logging and railroad industry on the north end of the Cherokee National Forest will require further research. From that body of knowledge about "ghost" logging operations the following can be developed:

- 1) A brochure for each of the three north end districts. Include maps highlighting logging and railroad points of interest.
- 2) An auto tour cassette tape for selected areas, accompanied by an area map. The program should be designed to relate stories, anecdotes, and reminiscences to stimulate the listeners interest.
- 3) A mobile interpretive display to relate the impact the industry had on the Appalachian people and natural resources. Highlight Forest Service successes with ecosystem recovery of cutover Southern Appalachian forestlands.
- 4) An interpretive skit to illustrate the rich heritage of the logging and railroad industry in the Southern Appalachians.

Numerous lumber and mineral companies were involved in extracting the natural resources in upper East Tennessee. Some companies were successful and some were not, ending their reign over the mountains in courtrooms under bankruptcy proceedings. The success of these

individual companies is not important. What is important is that the companies were here, they mined and logged the resource, built railroads to remove their treasures, developed communities to support their industries and supplied jobs for the local residents.

The industrialization of the Southern Appalachians in the early 1900s impacted the mountains and its people more than anything ever had before or since. Yet, little remains to remind us of that era. (See Figures 5.1-5.3.) The saws have stilled, the engines' whistles don't blow, the tracks are gone "...but it takes little imagination to look at these inspiring mountains, gaze into the gorges, hear the whistles of the locomotives, and *Listen to their Stack Talk.*"³

Can you hear it?

³ Ibid.



Figure 5.1 Railroad car used in roadbed on Paint Creek Road. *Photo by author.*



Figure 5.2 Railroad wheels located along Little Paint Creek Trail, 1993. *Courtesy of USDA Forest Service, Nolichucky Ranger District.*



Figure 5.3 One of the many hemlock bridges left on Little Paint Creek Trail, 1993. *Courtesy of USDA Forest Service, Nolichucky Ranger District.*

BIBLIOGRAPHY

- Barnes, Lee. "Appalachian Logging." *Katuah Journal*, 36 (Fall 1992): 4-6.
- Buxton, Barry M. and Crutchfield, Malinda L., eds. *The Great Forest: An Appalachian Story*. (Boone: Appalachian Consortium Press, 1985.
- Cordova, Carlos. Interview with author. Greene County, Tenn., 27 January 1994 and 7 March 1994.
- Comstock, Henry B. *The Iron Horse: An Illustrated History of Steam Locomotives*. Wauke-sha: Kalmbach Publishing Co., 1993.
- Cox, Elmer. Interview with author. Greeneville, Tenn., January 1994.
- Doak, Margaret S. Unpublished personal diary, 1911-1914.
- Goforth, James A. "Railroads of East Tennessee." Vertical file "Railroads-Tennessee, East," Archives of Appalachia, East Tennessee State University, Johnson City, Tenn. N.D.
- Harrison, Marvin. Interview with author. Greene County, Tenn., 16 November 1993 and 28 February 1994.
- Hopson, Gene. Interview with author. Greene County, Tenn. 27 February 1994.
- Hurley, Bob. "Pea Vine Railroad Represents Some of County's Most Glorious By-gone Days." *The Greeneville Sun*, 22 August 1970, The Sun Weekender.
- Kramer, Constance. "The Railroad." In *Bicentennial 1783-1983: Greene County*. [Greeneville, Tenn.]: Greeneville Sun, 1983.
- Irvine, Pete. Interview with author. Johnson City, Tenn., 15 March 1994.
- Marshall, John. *Rail, Facts and Feats*. New York: The Two Continents Publishing Group, Ltd., 1974.
- Parker, Francis H. "Southern Appalachian logging." *The Blue Ridge Stemwinder*, 3 (Spring 1991): 3-8.
- Patterson Lumber Company, Tract #6, Abstract of Title, Nolichucky Ranger District land acquisition files, Cherokee National Forest, Nolichucky Ranger District, Greeneville, TN.
- Phinney, Ralph. Interview with author. Greeneville, Tenn., 4 March 1994.
- Randolph, Delzie. Interview with author. Greene County, Tenn., 9 March 1994.

- Ricker, Otis. Interview with author. Greene County, Tenn., 28 February 1994.
- Sulzer, Elmer G. *Ghost Railroads of Tennessee*. Indianapolis: Vana A. Jones Company, 1975.
- Tarlton, Wayland. Interview with author. Cocke County, Tenn., 9 March 1994.
- Tennessee, Coal, Iron & Railroad Company, Tract #'s 1a-1h - II, Abstract of Title, Nolichucky Ranger District land acquisition files, Cherokee National Forest, Nolichucky Ranger District, Greeneville, Tenn.
- Trimble, Mr. and Mrs T.E. Interview , 27 June 1970. Audiotape 118. Burton-Manning collection, Archives of Appalachia, East Tennessee State University, Johnson City, Tenn., N.D.
- Trout, Ed. "Logging in Sevier County," unpublished typewritten manuscript, Historian's Office, Great Smoky Mountain National Park, 1985.
- United States Department of Agriculture. *Message from the President of the United States, Transmitting a Report of the Secretary of Agriculture in Relation to the Forests, Rivers, and Mountains of the Southern Appalachian Region*. Washington DC: Government Printing Office. 1902.
- USDA Forest Service, Cherokee National Forest, Nolichucky Ranger District land acquisition files, Heilman, John Lumber Company, Tract #9, Abstract of Title, Nolichucky Ranger District, Greeneville, Tenn.
- USDA Forest Service, Cherokee National Forest, Nolichucky Ranger District land acquisition files, Patterson Lumber Company #6, Abstract of Title, Nolichucky Ranger District, Greeneville, Tenn.
- USDA Forest Service, Cherokee National Forest, Nolichucky Ranger District land acquisition files, Tennessee, Coal, Iron & Railroad Company, Tract #'s 1a-1h - II, Abstract of Title, Nolichucky Ranger District, Greeneville, Tenn.
- Waite, John R. "W.M. Ritter Company Towns." *The Blue Ridge Stemwinder* 3 (Spring 1991): 8-12.
- Waite, John R. "Working for W.M. Ritter Lumber Company." *The Blue Ridge Stemwinder* 3 (Spring 1991): 13.
- Weals, Vic. *Last Train to Elkmont*. Knoxville: Olden Press, 1991.
- Woody, Bill. Interview with author. Cocke County, Tenn., 24 February 1994.

APPENDICES

APPENDIX I

WANTED

Facts, photos, news clippings, stories and tall tales about the narrow gauge railroad or tram system located in Greene County in the early 1900's. Contact Cheryl Summers, Nolichucky Ranger District before February 1st. 638-4109.

WANTED

Facts, photos, news clippings, stories and tall tales about the narrow gauge railroad or tram system located in Greene County in the early 1900's. Contact Cheryl Summers, Nolichucky Ranger District before February 1st. 638-4109.

APPENDIX II

Known Railroad Lines in Northeast Tennessee

1. East Tennessee and Western North Carolina Railroad (ET & WNC), affectionately nicknamed the "Tweetsie" was a thirty-four mile narrow gauge line between Johnson City, Tennessee and Cranberry, North Carolina. It was used mostly to haul iron ore and timber, but passenger service was also provided. It was common for train crews to run errands and deliver messages for people along the line.

Other aspects of the ET & WNC Railroad include the incline railroad built from White Rock Station to the top of the mountain, used to haul sawn lumber down the mountain, and the Cloudland Hotel built on Roan Mountain in 1885. Horse drawn wagons delivered passengers and freight from the ET & WNC station located in the town of Roan Mountain to the hotel.¹

2. Laurel Fork Railway incorporated in 1910, ran from Elizabethton to Laban. Pitts-

¹ Elmer G. Sulzer, *Ghost Railroads of Tennessee* (Indianapolis: Vane A. Jones Company, 1975) 86-100.

burgh Lumber cut 12,000 acres around Dennis Cove. Logs were transported on spur rails to the main track and then to the mill at Braemer. By the early 1920s the timber had been cut and the spur lines removed. ²

3. A thirteen mile branch line from the East Tennessee, Virginia and Georgia Railway was built to haul minerals from the 30,000 acre land holding of the Embreeville Freehold Land, Iron & Railway Company, Ltd. The rail line was located in Washington, Unicoi and Greene Counties. The communities of Embreeville and Bumpass Cove developed as a result of the industry. In 1939 the track was abandoned.³

4. In 1905 the Johnson City, Bakersville and Southern Railway was chartered and constructed a 10.7-mile narrow gauge track from Unicoi east to Limestone Cove, south to the Unaka Mountain Range. The main line was 7.1-miles long, the remaining 3.6-miles of track were spurs into the woods. In 1919 the railroad was abandoned.⁴

5. The Bristol to Mountain City line began in 1892 and was extended several times between 1900 and 1906. Its primary function was to haul logs for a number of lumber companies that operated in the area. A portion of the track was located along the

² Ibid. p. 122.

³ Ibid. p. 123.

⁴ Ibid. p. 125.

Watauga River between Gouge and "old" Butler.⁵ That portion of the line is now underneath Watauga Lake, created when Watauga River was dammed and flooded in 1948.⁶

6. The Holston Valley Railway, a 12.79-mile mainline narrow gauge railroad, was built for Morton, Lewis and Willey, a lumber company. The line extended along the South Fork of the Holston with spurs ascending up the tributaries to haul logs. The main railway between Bristol and Fields through Big Creek and Fish Dam was abandoned in 1918.⁷

7. Beaver Dam Railroad and the Crandull & Shady Valley Railway were built in 1900. It transported logs for the Tennessee Lumber and Manufacturing Company located in Shady Valley and iron for the Empire Lumber and Mining Company. A feature of the Beaver Dam was the short tunnel located at Back Bone Rock, through which Tennessee Highway 133 passes today. The line was abandoned in 1918 when the area was logged out and the mining became unprofitable.⁸

8. The Laurel Railway was organized in 1905 by the T.W. Thayer Lumber Company.

⁵ Ibid. p. 221-222.

⁶ Interview with Pete Irvine, USDA Forest Service, Elizabethton, TN, 14 March 1994.

⁷ Sulzer, p. 224-225.

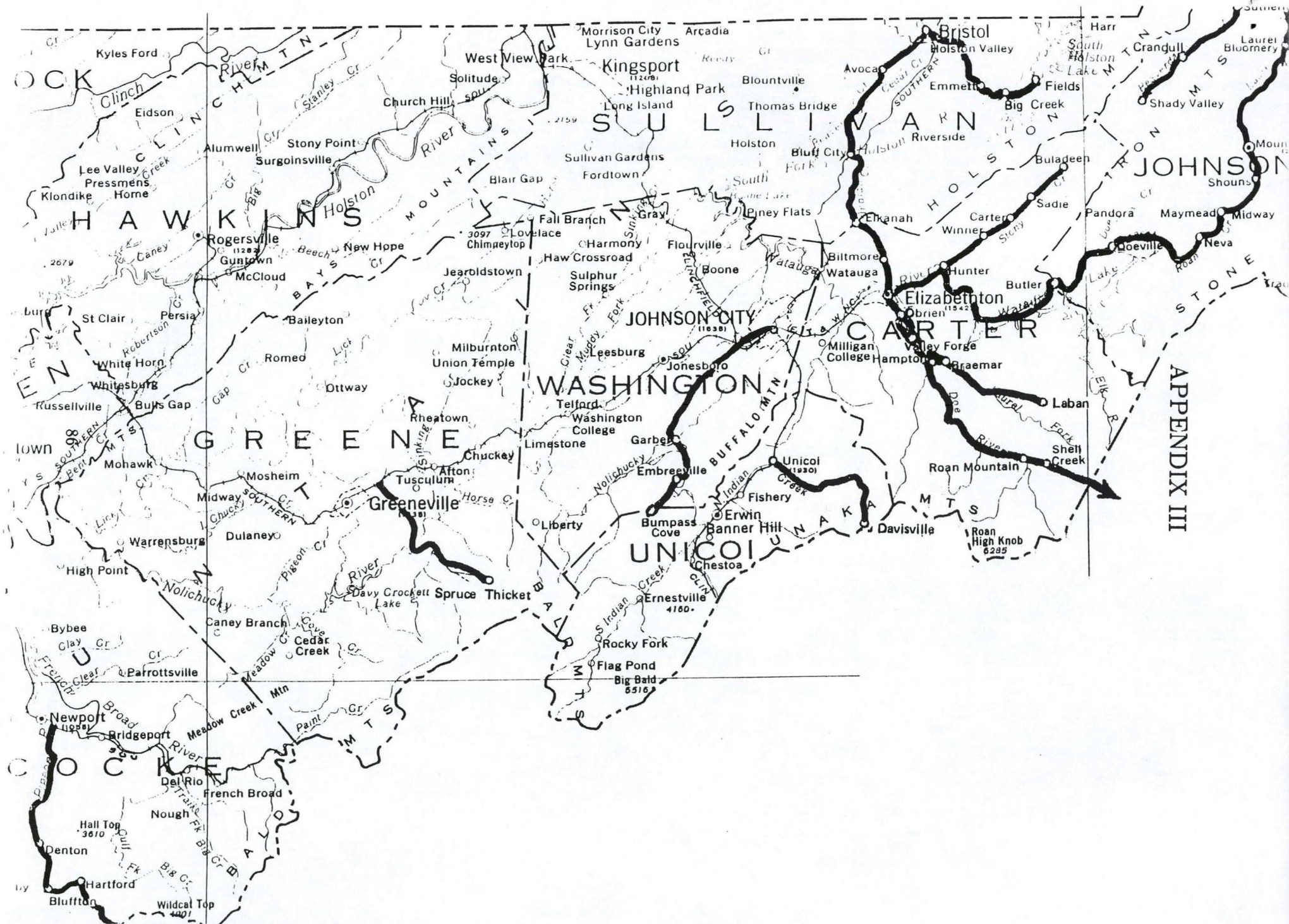
⁸ Ibid. p. 226.

The Whiting Manufacturing Company logged the east side of Iron Mountain and used the line to transport logs. Vital passenger service was also provided by the narrow gauge railway. The line was abandoned in 1919.⁹

9. The Tennessee and North Carolina Railway from Newport to Crestment was associated with several different lumber interests. The twenty-one mile track was begun in 1900 and completed in 1902. A branch line used for logging was located near Hartford along the Pigeon River to the Tennessee-North Carolina state line. The Boice Hardwood Company operated a bandmill at Hartford from 1918 to 1931. The line was abandoned in 1938.¹⁰

⁹ Ibid. p. 227-230.

¹⁰ Ibid. p. 29-38.



APPENDIX IV

Lumber Companies Known to have Operated in Cherokee National Forest Area in the Early 1900s.

A.C. Lawrence Leather Company
American Cigar Box Lumber Company
Boice Hardwood Company
Boone Fork Lumber Company
The Bradley Company
Bristol Hardwood Company
Brook Lumber Company
Champion Lumber Company
Empire Lumber and Mining Company
George M. Craig Lumber Company
Haywood Land and Timber Company
The James Fry Strong Lumber Company
John Heilman Lumber Company
Laurel River Lumber Company
Laurel Fork Lumber Company
Mt. Sterling or Cataloocha Lumber Company
North Carolina Timber and Land Company
Patterson Lumber Company
Pittsburgh Lumber Company
R.E. Wood Lumber Company
Tennessee Coal, Iron & Railroad Company
Tennessee Lumber and Manufacturing Company
T.W. Thayer Lumber Company
Vestal Lumber Company
White Lumber Company
Whitney Manufacturing Company
Willey Boom & Lumber Company
William E. Uptegrove & Bros.
W.H. Ritter Lumber Company